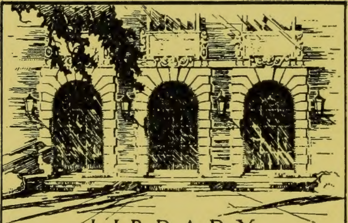

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NEW MEXICO COLLEGE OF AGRICULTURE AND MECHANIC ARTS

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FOURTEENTH ANNUAL REGISTER

New Mexico College

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Agriculture and Mechanic Arts

MESILLA PARK

Catalogue of Students for 1903-1904

AND

Announcements for 1904-1905

SANTA FE, N. M.
New Mexican Printing Company
1904.

C
N463.H
1903/04-1908/09

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CALENDAR FOR 1904-1905.

September	5-6, 1904,	Examination of candidates for admission and re-examination of deficient students.
"	5-6-7, 1904,	Matriculation of students.
"	7, 1904,	Assignment of students to classes and assignment of work by class instructors.
"	8, 1904,	Regular class work of first term begins.
November	18, 1904,	Recitations of first term end.
"	21-23, 1904,	Examination of classes for first term's work.
"	24, 1904,	Thanksgiving holiday.
"	28, 1904,	Assignment of students to classes for second term and assignment of work by class instructors.
November	29, 1904,	Regular class work of second term begins.
December	24, 1904,	Christmas vacation begins.
January	8, 1905,	Christmas vacation ends.
February	22, 1905,	Washington's Birthday—holiday.
"	24, 1905,	Recitations of second term end.
Feb. 27, 28,	March 1, 1905,	Examination for second term's work.
March	6, 1905,	Assignment of students to classes for third term and assignment of work by class instructors.
"	7, 1905,	Regular class work of third term begins.
May	5, 1905,	Field Day.
"	23, 1905,	Recitations of third term end.
"	24-25-26, 1905,	Examination for third term's work; Senior vacation.
"	28, 1905,	Baccalaureate Sermon.
May	29, 1905,	8. P. M., Annual Entertainment by the Musical Department.
"	30, 1905,	Memorial Day—holiday.
"	30, 1905,	P. M., Annual Address to the Literary Societies.
"	31, 1905,	10:30 A. M., Commencement exercises.
"	31, 1905,	12:30 P. M., Alumni Meeting.

BOARD OF REGENTS.

Granville A. Richardson, President, Roswell, N. M.
H. B. Holt, Secretary and Treasurer, Las Cruces, N. M.
Seaman Field, Deming, N. M.
W. A. Cooper, Santa Fe, N. M.
José Lucero, Las Cruces, N. M.

Advisory Members.

Hon. Miguel A. Otero, Governor of New Mexico, Santa Fe, N. M.
Hon. J. Francisco Chaves, Supt. of Pub. Instruction, Santa Fe, N. M.

FACULTY.

Luther Foster, B. S., Iowa State College, 1872; M. S. Agr., ibid., 1888. President and Professor of Political Economy.

Clarence T. Hagerty, B. S., Notre Dame University, 1890; M. S., ibid., 1895. Professor of Mathematics and Astronomy.

Hiram Hadley, A. M., Earlham College, 1885. Professor of History and Philosophy.

Elmer O. Wooton, B. S., Earlham College, 1889; A. M. ibid., 1896. Professor of Biology, and in charge of Geology.

Francis E. Lester, Registrar and Principal of the Department of Stenography.

John Dabney Tinsley, B. S., New Mexico Coll. of Agr. and Mech. Arts, 1890. Professor of Physics.

Alice Horning, B. S., Agricultural College of Oregon, 1882. Professor of Domestic Science, Dean of Women, and Matron of the Women's Hall.

John J. Vernon, B. Agr., Iowa State College, 1897; M. S. A., ibid., 1900. Professor of Agriculture and Horticulture and Superintendent of Grounds.

D. M. Richards, A. B., Oberlin College, Principal of the Preparatory School.

Charles Mills, Professor of Mechanical Engineering.

Merritt Lorraine Hoblit, A. B., Kalamazoo College, 1901; A. B., University of Chicago, 1901. Professor of Spanish and Latin.

*Alfred S. Frost, Colonel U. S. Army, graduate of the General Service and Staff College, Fort Leavenworth, 1891. Professor of Military Science and Tactics.

Raleigh Frederick Hare, B. S., Alabama Polytechnic Institute, 1892; M. S., ibid., 1893. Professor of Chemistry.

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* Resigned, Sept. 1, 1904.

JOHN R. MACARTHUR, A. B., University of Manitoba, 1892; Ph. D., University of Chicago, 1903. Professor of English.

FABIAN GARCIA, B. S., New Mexico College of Agriculture and Mechanic Arts, 1894. Professor of Horticulture.

Other Officers of Instruction

GERALDINE COMBS, Assistant in Preparatory Department.

ARCHIE BRUCE SAGE, B. S., New Mexico College of Agriculture and Mechanic Arts, 1900. Assistant Professor in Mechanical Engineering Department.

CHARLOTTE A. BAKER, Librarian and Assistant in English.

FRANCIS ELIZABETH BLAKESLEY, B. L., Washburn College, 1895. Assistant in the Preparatory Department.

JOHN OLIVER MILLER, B. S., University of Colorado, 1899. Assistant to the Registrar and in the Department of Stenography and Typewriting.

ELIZABETH E. SHIMER, Assistant in the Preparatory Department.

PINCKNEY FORD, Assistant in the Department of Stenography and College Stenographer.

FLORENCE J. FOSTER, B. S., Montana Agricultural College, 1900. Assistant in Domestic Science.

JOHN M. SCOTT, B. S., Kansas Agricultural College, 1903. Assistant in Animal Husbandry.

FRANK O. WOODRUFF, Ph. B., Brown University, 1899; A. M., Tabor College, 1901. Assistant in Chemical Department.

AMOS E. LOVETT, B. S., Oklahoma Agricultural College, 1904. Assistant in Irrigation.

ELMER I. CHUTE, A. B.; E. E., University of Tenn., 1904. Assistant in Mechanical Engineering.

*ABBIE L. DINGESS, Instructor in Instrumental Music.

HONORA M. M. MURPHY, Instructor in Vocal Music.

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*Resigned, June, 1904.

FACULTY COMMITTEES.

Course of Study.

Clarence T. Hagerty, *Chairman.*

E. O. Wooton.
D. M. Richards,
Alice Horning.
Chas. Mills,
J. J. Vernon.

Catalogue.

E. O. Wooton, *Chairman.*

J. R. Macarthur.
F. E. Lester.

Judiciary.

H. Hadley, *Chairman.*

C. T. Hagerty.
M. L. Hoblit.

Buildings and Grounds.

Chas. Mills, *Chairman.*

J. J. Vernon.
F. Garcia.

Entertainment.

Alice Horning, *Chairman.*

F. Garcia.
R. F. Hare.

Extension Work and Advertising.

F. E. Lester, *Chairman.*

M. L. Hoblit.
J. D. Tinsley.

Student Conference.

D. M. Richards, *Chairman.*

Alice Horning.
Chas. Mills.

Boarding.

R. F. Hare, *Chairman.*

F. E. Lester.
Alice Horning.

Library.

J. D. Tinsley, *Chairman.*

J. R. Macarthur.
E. O. Wooton.

Miss Baker, *ex officio.*

Athletics.

J. J. Vernon, *Chairman.*

J. D. Tinsley.
A. S. Frost.

NOTE: The president is exofficio a member of all committees.

GENERAL STATEMENT,

Location.

The New Mexico College of Agriculture and Mechanic Arts is located at Mesilla Park, Doña Ana County. Mesilla Park is situated about the middle of the Mesilla Valley on the main line of the Santa Fe Railway connecting Albuquerque and El Paso, Texas, about 40 miles from the latter city. Two miles and a half north of the college is the town of Las Cruces, with a population of about 4,000 souls. Here may be found a public school, two mission schools, and a Catholic academy for girls; while Presbyterians, Methodists, Baptists, and Roman Catholics hold regular church services, to which students are always welcome. At Mesilla Park there is a public school, which fits students for entrance to the Preparatory Department of the College, and the Episcopalians hold regular services here, in their newly completed chapel.

Origin.

The New Mexico College of Agriculture and Mechanic Arts, under a slightly different name, was established by an act of the Twenty-eighth Assembly of New Mexico, approved February 28, 1889. The purpose of the institution is defined in Section 19 of this act:

"The Agricultural College created and established by this act shall be non-sectarian in character, and devoted to practical instruction in agriculture, mechanic arts, natural sciences connected therewith, as well as a thorough course of instruction in all branches of learning bearing upon agriculture and other industrial pursuits."

The branches in which instruction may be given are set forth as follows in Section 20 of the same act:

"The course of instruction of the College hereby created shall embrace the English language, literature, mathematics, philosophy, civil engineering, chemistry, animal and vegetable anatomy and physiology, the veterinary art, entomology, geology, and political, rural, and household economy, horticulture, moral philosophy, history, mechanics, and such other sciences and courses of instruction as shall be prescribed by the regents of this institution of learning."

By Section 25 of the same act, the assent of the Legislative Assembly was given to the establishment of Experiment Stations within the Territory of New Mexico in connection with the Agricultural College, in pursuance of the act of Congress approved March, 2, 1887;—the Hatch Act.

Income.

The revenues of this College, are derived from the following sources:—

1. Students' fees.
2. Sale of farm products.
3. Territorial tax and special appropriations.
4. The United States, under Congressional Act, of August 30, 1890—the Morrill fund.
5. The United States, under Congressional Act of March 2, 1887—the Hatch fund.

The money received from fees and farm products has, so far, been very limited, and has been applied to the payment of such expenses as are not provided for by either act of Congress.

The Territorial Act creating the institution provided for an annual levy of one-fifth of a mill, commencing with the year 1889. The Thirty-Fifth Legislative Assembly increased the rate to two-fifths of a mill, and the levy will hereafter yield an annual income of about $13,000.

The Morrill Fund was created by the United States law of August 30, 1890, "for the more complete endowment and support of the Colleges of Agriculture and Mechanic Arts in the several States and Territories." It is paid over to them before July 31, of each year. The College received this fund first in 1890, to the amount of $15,000. Henceforth the fund will amount to $25,000. This fund can be applied *only* "to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural and economic sciences, with special reference to their application in the industries of life, and to the facilities for such instruction." *No part of this fund may be used for building or repairs, or for ordinary running expenses, such as salaries of administrative officers,—as president, clerk, librarian, etc.,—equipment of the library, and ordinary furniture, stationery, printing, etc., or for teaching any subject not referred to in this Act.* The theory of the federal government in accordance with which these appropriations have been made, is that the State or Territory must provide the buildings and grounds and keep them in repair and must also provide for all the general administrative expenses of the college, and that the federal appropriation is to be used only for the purposes of paying teachers and supplying the necessary books and apparatus for teaching the specific subjects mentioned in the Act.

By the United States law of March 2, 1887, the *Hatch Act*, appropriations are made for the maintenance of Experiment Stations in connection with Agricultural Colleges in the several States and Territories. For the support of each station there is set apart the sum of $15,000 a year, payable quarterly. This money must be used for "paying the necessary expenses of conducting investigations and experiments, and printing and distributing the results." Bulletins showing progress must be printed each quarter, and be sent to each newspaper in the Territory and to all farmers who apply for them. This fund first became available for this College in 1889–90, to the amount of $10,000. Since July 1, 1890; $15,000 a year has been received. *After the first year, only five per cent. of this fund may be used to erect, enlarge, or repair buildings for the use of the Experiment Station; and no part of it may be applied to the expenses of instruction or to general college purposes. It must be applied exclusively to the carrying on of agricultural experiments and to the dissemination of the results thereof.*

Endowment.

By an Act of Congress, approved June 21, 1898, this College was given 100,000 acres of public land, the proceeds of which are to form a permanent endowment fund. This land has all been located, a small portion has been leased. and the remainder will be either leased or sold as soon as possible. The institution is now receiving a small income from this source.

Requirements for Admission.

Candidates for admission to the *Freshman* year will be admitted without examination upon completion of the subjects of the Senior Preparatory year, or on a certificate showing that the same or an equivalent amount of work has been completed at any of the following High Schools:

Albuquerque High School.
Deming High School.
El Paso High School.
Las Vegas High School.
Raton High School.
Roswell High School.
Gallup High School.

Other candidates must pass examinations in the following subjects:

English.—Lockwood's Lessons in English, or its equivalent. No applicant will be admitted who is unable to write English fairly correct in spelling, punctuation, paragraphing, etc., and free from gross grammatical and rhetorical errors. Some knowledge of literature is also required.

General History.—Myer's General History or Sheldon's General History or their equivalent.

Algebra.—Milne's Academic Algebra through logarithms, or its equivalent.

Physics.— Shaw's Physics by Experiment, or its equivalent.

Physical Geography.—Maury's Physical Geography, or its equivalent.

Physiology.—Martin's Human Body (brifer course), or its equivalent.

Civil Government.—McCleary's Studies in Civics, or its equivalent.

Free Hand Drawing.—At least a year's thorough work.

Arithmetic.—White's Complete Arithmetic or its equivalent.

History of the United States.—Fiske's School History or Barnes' Brief History of the United States, or their equivalent.

Geography.—Maury's Manual of Geography or its equivalent.

Students coming from other colleges whose requirements for admission are substantially equivalent to those of this college may be admitted to corresponding classes here provided they bring certificates showing amount of work completed. Other candidates for advanced standing will be examined in the subjects prescribed for admission, and also in the undergraduate studies with which they desire to be credited.

All applicants for admission must furnish satisfactory evidence of good moral character. The President and Faculty reserve the right to reject students who appear to be too immature to live away from home.

COURSES OF STUDY.

THE COLLEGIATE COURSES OF STUDY ARE AS FOLLOWS.

Freshmen Year.

AGRICULTURE	MECHANICAL ENGINEERING	DOMESTIC SCIENCE	GENERAL
FIRST TERM			
*1 Mathematics (Geom. Pl.), 5. 1 English, 5. 1 Zootechny (Livestock), 2. 1 Biology (Zool.), 2+6P. 1 Horticulture (Greenhouse), 2. 3 Horticulture (Greenhouse), 2P.	1 Mathematics (Geom. Pl.), 5. 1 English, 5 1 Spanish or 1 Latin, 5. 27 Mech. Engin. (Woodturning). 6P. 1 Mech. Engin. (Drawing), 4P.	1 Mathematics (Geom. Pl.), 5. 1 English, 5. 1 Spanish or 1 Latin, 5. 1 Biology (Zool.), 2+6P.	1 Mathematics (Geom. Pl.), 5. 1 English, 5. 1 Spanish or 1 Latin, 5. 1 Biology (Zool.), 2+6 P.
SECOND TERM			
2 Mathematics (Geom. Pl.), 5. 2 English, 5. 2 Zootechny (Livestock), 2+2P. 2 Biology (Zool.), 2+6P. 2 Horticulture (Greenhouse), 1. 4 Horticulture (Greenhouse), 2P.	2 Mathematics (Geom. Pl.), 5. 2 English, 5. 2 Spanish or 2 Latin, 5. 20 Mech. Engin. (Forging), 10 P.	2 Mathematics (Geom. Pl.), 5. 2 English, 5. 2 Spanish or 2 Latin, 5. 2 Biology (Zool.), 2+6P.	2 Mathematics (Geom. Pl.), 5. 2 English, 5. 2 Spanish or 2 Latin, 5. 2 Biology (Zool.), 2+6 P.
THIRD TERM			
3 Mathematics (Geom. Sol.), 5. 3 English, 5. 3 Zootechny (Livestock), 2. 3 Biology (Botany), 2+6P. 5 Horticulture, 2+2P.	3 Mathematics (Geom. Sol.), 5. 3 English, 5. 3 Spanish or 3 Latin, 5. 21 Mech. Engin. (Woodwork), 6P. 2 Mech. Engin. (Drawing), 4P.	3 Mathematics (Geom. Sol.), 5. 3 English, 5. 3 Spanish or 3 Latin, 5. 3 Biology (Botany), 2+6P.	3 Mathematics (Geom. Sol.), 5. 3 English, 5. 3 Spanish or 3 Latin, 5. 3 Biology (Botany), 2+6P.

* The number or letter preceding the subject is the number by which each course is referred to in the College records. The number following each subject indicates the number of hours per week devoted to the subject. P indicates any kind of laboratory or other practice work, two hours of which is accepted as the equivalent of one hour of recitation or lecture work.

NOTICE—Military Tactics is required of all male students of the institution except Juniors, Seniors, and Graduate Students, four hours per week throughout the year.

Sophomore Year

AGRICULTURE	MECHANICAL ENGINEERING	DOMESTIC SCIENCE	GENERAL
FIRST TERM			
4 Mathematics (Trig.), 5. 4 English, 5. 1 Physics, 4+2 P. 1 Spanish or 1 Latin, 5.	4 Mathematics (Trig.), 5. 4 English, 5. 1 Physics, 4+2 P. 22 Mech. Engin. (Pattern Mak.), 10 P.	4 Mathematics (Trig.), 5. 4 English, 5. 1 Physics, 4+2 P. 4 Spanish or 4 Latin, 5.	4 Mathematics (Trig.), 5. 4 English, 5. 1 Physics, 4+2 P. 4 Spanish or 4 Latin, 5.
SECOND TERM			
1 Agronomy (Soils and Crops), 2. 4 Zootechny (Prin. of Breed.), 2. 1 Soil Physics, 8 P. 2 Spanish or 2 Latin, 5. 1 Surveying, 1+8 P.	5 English, 5. 2 Physics, 4+2 P. 7 Mech. Engin. (Desc. Geom.), 5. 1 Surveying, 1+8 P. 3 Mech. Engin. (Draw.), 4 P.	5 English, 5. 2 Physics, 4+2 P. 5 Spanish or 5 Latin, 5. 1 Domestic Science (Cooking), 6 P. 2 Domestic Science (Sewing), 4 P.	5 English, 5. 2 Physics, 4+2 P. 5 Spanish or 5 Latin, 5. 1 Surveying, 1+8 P.
THIRD TERM			
2 Agronomy (Soils and Crops), 4. 6 Horticulture (Forestry), 2. 3 Spanish or 3 Latin, 5. 7 Horticulture (Olericulture), 2+2 P. 3 Physics, 4+2 P. 4 Biology (Bacteriol.), 2.	6 English, 5. 3 Physics, 4+2 P. 5 Mathematics (High Alg.), 5. 23 Mech. Engin. (Foundry), 6 P. 4 Mech. Engin. (Descr. Geom.), 4 P.	6 English, 5. 3 Physics, 4+2 P. 6 Spanish or 6 Latin, 5. 4 Biology (Bacteriol.), 2. 2 Domestic Science (Cooking), 2 P. 4 Domestic Science (Sewing), 4 P.	6 English, 5, 3 Physics, 4+2 P. 6 Spanish or 6 Latin, 5. 1 History (Med. and Mod.), 5.

JUNIOR YEAR

AGRICULTURE	MECHANICAL ENGINEERING	DOMESTIC SCIENCE	GENERAL
FIRST TERM			
7 English, 1. 1 Chemistry, 3+4 P. 8 Horticulture (Pomology), 5. 11 Horticulture (Entomol.), 2. 1 Meteorology, 2. Elective, 5.	7 English, 1. 1 Chemistry, 3+4 P. 6 Mathematics (Anal. Geom), 5. 8 Mech. Eng. (Elem. Mech.), 4. 24 Mech. Eng. (Iron work), 6 P. 5 Mech Engin. (Machine Design), 4 P.	7 English, 1. 1 Chemistry, 3+4 P. 1 Astronomy, 5+2 P. 5 Domestic Science (Canning, etc.), 6 P. 14 Horticulture (Floriculture), 1+2 P. Elective, 3.	7 English, 1. 1 Chemistry, 3+4 P. 1 Astronomy, 5+2 P. Elective, 8.
SECOND TERM			
8 English, 1. 2 Chemistry, 2+6 P. 1 Political Economy, 4. 5 Zootechny (Feeding), 5. 9 Horticulture (Pomology), 2 P. Elective, 5.	8 English, 1. 2 Chemistry, 2+6 P. 7 Mathematics (Calculus), 5. 10 Mech. Engin. (Str. of Mater.), 5. 1 Political Economy, 4.	8 English, 1. 2 Chemistry, 2+6 P. 1 Political Economy, 4. 2 Astronomy, 1+2 P. 6 Domestic Science (Cooking), 8 P. Elective, 4.	8 English, 1. 2 Chemistry, 2+6 P. 1 Political Economy, 4. 2 Astronomy, 1+2 P. Elective, 8.
THIRD TERM			
9 English, 1. 3 Chemistry, 8 P. 5 Biology, (Plant Phys.), 3+2 P. 10 Horticulture (Pomology), 2 P. 12 Horticulture (Landsc. Gard), 2. Elective, 8.	9 English, 1. 3 Chemistry, 8 P. 8 Mathematics (Calculus), 5. 18 Mech. Engin. (Machine Design), 4 P. 9 Mech. Eng. (Mechanism), 4. 25 Mech. Engin. (Machine shop), 6 P.	9 English, 1. 3 Chemistry, 8 P. 6 Biology (Physiol.), 5. 3 Astronomy, 1+2 P. 7 Domestic Science (Invalid Cook), 6 P. 7 Horticulture (Olericulture), 2+2 P. Elective, 2.	9 English, 1. 3 Chemistry, 8 P. 6 Biology (Physiol.), 5. 3 Astronomy, 1+2 P. Elective, 8.

Senior Year

AGRICULTURE	MECHANICAL ERGINEERING	DOMESTIC SCIENCE	GENERAL
FIRST TERM			
10 English, 2. 4 Chemistry (Agr. Chem.), 3. 3 Agronomy (Rural Engin.), 2+2 P. 6 Zootechny (Dairying), 3+4 P. Elective, 7.	10 English, 2. 1 Mineralogy, 10 P. 12 Mech. Engin. (Steam Boilers) 5. 26 Mech. Engin. (Mach. Shop), 4 P. 6 Mech. Engin. (Machine Design), 4 P. 11 Mech. Engin. (Eng. Struct.), 5.	10 English, 2. 1 Mineralogy, 10 P. 1 Philosophy (Psychol.), 5. 8 Domestic Science (Dietetics), 2. 9 Domestic Science (Dressmaking), 2 P. Elective, 5.	10 English, 2. 1 Mineralogy, 10 P. 1 Philosophy (Psychol.), 5. Elective, 8.
SECOND TERM			
11 English, 2. 1 Geology, 5 5 Chemistry (Agr. Chem.), 6 P. 4 Agronomy (Rural Econ.), 3. 13 Horticulture (Plant Breeding), 2. Elective, 5.	11 English, 2. 1 Geology, 5. 1 Metallurgy, 4. 13 Mech. Engin. (Steam Engine), 4. 14 Mech. Engin. (Hydraulics), 5.	11 English, 2. 1 Geology, 5 2 History (Hist. Civiliz.), 5. 10 Domestic Science (H. Sanitation), 2. 11 Domestic Science (Dressmaking), 2 P. Elective, 5.	11 English, 2. 1 Geology, 5. 2 History (Hist. Civiliz.), 5. Elective, 8.
THIRD TERM			
12 English, 2. 5 Agronomy (Pract. Agr.), 5. 6 Chemistry (Agr. Chem.), 6 P. Thesis, 5. Elective, 5.	12 English, 2. 16 Mech. Engin. (Anal. Mech.), 5. 17 Mech. Engin. (Elect. Eng.), 5. 15 Mech. Engin. (E. and B. Tests), 4 P. Thesis, 6.	12 English, 2. 12 Domestic Science (Chem. of Foods), 3. 13 Domestic Science (Chafing dish), 2 P. 14 Domestic Science (Dressmaking), 2 P. Thesis, 5, Elective, 8.	12 English, 2. 2 Geology, 5. Thesis, 5. Elective, 8.

Electives *

FIRST TERM	SECOND TERM	THIRD TERM
Adv. Chemistry, 6 P.	Adv. Chemistry, 6 P.	Adv. Chemistry, 6 P.
Adv. Physics, 6 P.	Adv. Physics, 6 P.	Adv. Physics, 6 P.
Adv. Botany, 6 P.	Adv. Botany, 6 P.	Adv. Botany, 6 P.
Adv. Soil Physics, 6 P.	Adv. Soil Physics, 6 P.	Adv. Soil Physics, 6 P.
Adv. Zoology, 4 P.	Adv. Zoology, 4 P.	Adv. Zoology, 4 P.
Domestic Science, 4 P.	Domestic Science, 4 P	Domestic Science, 4 P.
Commercial Spanish, 5.	Commercial Spanish, 5.	Commercial Spanish, 5,
English History, 5.	English History, 5.	Adv. Am. History, 5
Agronomy, 6 P.	Applied Psychology, 5.	Theory and Practice of Teaching, 5.
Zootechny, 6 P.	Bookkeeping, 5.	Bookkeeping, 5.
Dairying, 6 P.	Agronomy, 6 P.	Agronomy, 6 P.
Horticulture, 6 P.	Zootechny, 6 P.	Zootechny, 6 P.
Commercial Arithmetic, 5	Dairying, 6 P.	Dairying. 6 P.
Music, 5 P.	Horticulture, 6 P.	Horticulture, 6 P.
13 English.	Music, 5 P.	Music, 5 P.
	14 English.	15 English.

* NOTE ON ELECTIVE STUDIES.—The figures following the Elective Studies indicate the minimum amount of time that may be devoted to them. Whenever the other work of the student and of the instructor do not prevent, a greater amount of time may be given to the subject.

The Elective studies are not assigned to any particular year, but may be taken whenever the student may be prepared for them, and has the necessary time at his disposal, subject always to the approval of the faculty.

In addition to the courses expressly designated as Elective Studies, any study pursued in the College, and not prescribed in the course of study that is being followed by the student in question, may be elected by him A student in the General Course, for example, may elect a study prescribed for Agricultural students; or to give a more specific example, a Senior in the Engineering Course (who has four hours free for an elective in the second term) may elect Political Economy, which is given in the Junior year of the General course, provided it is given at an hour which he is free from other engagements.

Senior Preparatory Year †

FIRST TERM	SECOND TERM	THIRD TERM
C English, 4.	B English, 4.	A English, 4.
C Mathematics, (Algebra), 5.	B Mathematics (Algebra), 5	A Mathematics(Algebra), 5.
B History (Grecian, etc.), 4.	A History (Roman, etc.).4.	A Chemistry, 4.
A Agronomy (Elementary), 3 or	A Horticulture (Elementary), 2+2 P.	A Biology (Botany), 4.
B Horticulture (Floriculture, 2+2 P.	A Mech. Engin. (Drawing), 2 P.	A Zootechny (Livestock), 2+2 P or
B Mechan. Engin. (Drawing), 2 P.	C Mech. Engin. (Carpentry), 6 P or	A Domestic Science, 1 and
D Mechan. Engin. (Capentry), 6 P. or	F Domestic Science, 4 P and	B Domestic Science, 2 P and
G Domestic Science, 4 P and	D Domestic Science, 4 P.	C Domestic Science, 2 P.
E Domestic Science, 4 P.		

† NOTE.—The Senior Preparatory Classes are taught by the College instructors not by the teachers of the Preparatory Department, and the students are under the immediate jurisdiction of the College Faculty, instead of under that of the principal of the Preparatory Department.

THE ELECTIVE SYSTEM

By consulting the courses of study offered by this institution (pp. 14–17) it will be seen that there are four courses outlined, three of which are of a more or less specialized character. Each of these latter is designed to fit the student for some special line of work, which he has decided to follow before entering the course. Besides their strictly technical subjects, they contain all those general educational and cultural subjects that are considered to be of most value to technical students, and which it was possible to introduce into these courses. This arrangement allows very little selection of work upon the part of the student, except that made when entering his particular course. Mechanical engineers have no choice of work. Agricultural men may elect a second year of language and a small number of other cultural subjects or more technical work, if they so desire. The domestic science course allows a certain amount of election which may be turned either to cultural work or to further technical work in that department.

The general course, however, is designed to include, as required work, all of those subjects which are necessary in any general course, and at the same time allow the student to select a large proportion of his work. The facilities offered and the time allowed are so arranged that a student may specialize in language (Spanish, Latin, or English), literature; (English or American), history, psychology, pedagogy, chemistry, physics, or biology, or may take a certain amount of technical training in agriculture, horticulture, mechanical engineering, or domestic science. With this arrangement a student, by entering the general course, may take any special course of his own choosing, which the institution is able to furnish.

Special Courses

Students of mature years, who cannot remain long enough to take a full course, may be allowed to take special courses. The faculty reserves the right to refuse such requests, or to order such modifications as may seem best for the student and the college. No degrees are granted for special work, but those who perform such work in a satisfactory manner will receive certificates.

Degrees

The degree of *Bachelor of Science (B. S.)* is conferred upon students who satisfactorily complete the work prescribed in any of the collegiate courses of study, but in order to receive the B. S. degree students are required to spend at least one year immediately before graduation, in this institution.

The degree of *Master of Science (M. S.)* is conferred upon students of this institution who after taking the degree of B. S. pursue for at least one year, or for two years as non-resident students, a course of study approved by the faculty, pass an examination on the same, and present a satisfactory thesis. Students of other institutions of similar character and equal rank, holding the bachelor's degree, desiring to take the M. S. degree from this institution are required to pursue here for at least one year, a course of study approved by the faculty, pass an examination on the same and present a satisfactory thesis.

DEPARTMENTS OF INSTRUCTION

AGRICULTURE AND HORTICULTURE

PROFESSOR VERNON
PROFESSOR GARCIA
MR. SCOTT
MR. LOVETT

The course in agriculture is designed to combine, in their proper proportions, that amount of theoretical study with practical training illustrative of the theory learned, which will produce a well rounded, practical, resourceful man. To this end the course is strong in those sciences, botany and chemistry in their various branches, which form important aids to applied agriculture. A certain number of other subjects of educational and practical value are included, notably the study of the Spanish language, proficiency in which opens a new field for the scientist among Spanish speaking peoples. To all this is added a large amount of practical work under competent instruction and with a modern equipment, while a certain amount of choice is allowed in the selection of the studies of the last two years. The instruction is given by text books, lectures, laboratory practice, and field observation.

This course fits young men for the various agricultural pursuits: farming, stockraising, dairying, fruit growing, nursery business, floriculture, and market gardening. It also prepares them for professorships of Agriculture, Horticulture, and Animal Husbandry in agricultural colleges, as well as for scientific aids in the United States Department of Agriculture. The demand for trained men in these latter positions has been so great, that, in recent years, almost all agricultural graduates have been called into college or experiment station work.

Agronomy, or Plant Culture

A. *Elementary Agriculture.* Introductory principles. The work is general and of a popular nature. Principles of

Agriculture by Bailey is used as a text, supplemented by lectures.

Required of all Senior Preparatory men, first term, 3 hours.

1, 2. *Soils and Field Crops.* Preparation of the soil, plant growth, selection of seed, germination under irrigation systems, cultivation, harvesting, storage, marketing.

Morrow and Hunt's Soils and Crops of the Farm, King's The Soil, and Roberts' The Fertility of the Land form the basis for the work.

Required of Agricultural Sophomores, second term, 2 hours, and third term, 4 hours. Credit 72 hours.

3. *Rural Engineering.* Planning ditch systems, application of water to land, economic use of fields and crops, buildings, and machinery.

Required of Agricultural Seniors, first term, 2 hours plus 2 hours practice. Credit 36 hours.

4. *Rural Economics.* History of Agriculture, farm management, and rural law.

Required of Agricultural Seniors, second term, 3 hours. Credit 36 hours.

5. *Practical Agriculture.* Scientific and practical problems in general agriculture as applied to the farm and ranch. Special effort is made to apply the principles discussed to New Mexico agriculture.

Required of Agricultural Seniors, third term 5 hours. Credit 60 hours.

Zootechny, or Animal Industry

This course aims to meet the growing needs of the territory, inasmuch as stock raising is one of the leading industries. The subjects are pursued from a practical and scientific standpoint, having in view the thorough equipment of young men for successful work in breeding, care, and management of large herds.

A. Live Stock and Score-card. Breeds of animals; cattle, horses, sheep and swine. A preliminary study with score-card practice.

Required of all male Senior Preparatory students, third term, 2 hours plus 2 hours practice.

OF THE
UNIVERSITY OF ILLINOIS

1, 2, 3. *Live Stock.* This course includes a study of the history, development, characteristics, selection, care and management, points of utility, etc., of the different breeds of cattle, horses, sheep, and swine. Special attention is given to a discussion of the breeds best adapted to New Mexico conditions. The subject matter of the text is supplemented by lectures. Throughout the course in live stock practical demonstration of the various points under discussion is made with individual animals of the college herd; also, occasional trips will be planned having in mind a study of the breeds, methods of handling, and local conditions of the various herds in this section.

Score-card practice is coincident with the study of breeds. Animals are brought before the class for demonstration and scoring. Lovelock's American Standard of Excellence, and other recognized standards will be followed in judging cattle, sheep, and swine.

The object of the study is to insure a familiarity with the characteristics of the leading breeds, so that students are enabled to become competent judges of live stock. This work is specially valuable for young men who expect in any way to deal with the live stock interests of the territory.

Required of Agricultural Freshmen, 2 hours first term, 3 hours second term and 2 hours third term. Credit 84 hours.

4. *Principles of Breeding.* This course covers the laws governing the breeding of animals, and includes the principles of heredity, laws of correlation and variation, in and in and cross breeding, parentage, form types, and pedigree. Attention is given to the subject of breeding for beef and for the dairy.

Required of Agricultural Sophomores, second term, 3 hours. Credit 36 hours.

5. *Stock Feeding.* This subject includes animal nutrition, chemistry of feeding stuffs, nutritive ratios, making rations, and a careful inquiry into the nutritive value of stock feeds available on the ranches and markets of New Mexico.

Required of Agricultural Juniors, second term, 5 hours. Credit 60 hours.

6. *Dairying.* The course in dairying comprises a study of the properties of milk and methods of handling milk and its products in the private dairy and in the thoroughly equipped creamery. Receiving and weighing, testing, separating, ripening cream, churning, pasteurizing, and marketing are subjects discussed in the class room. Instruction is also given in the principles of the Cheddar system of making cheese.

Required of Agricultural Seniors, first term, 3 hours plus 4 hours practice. Credit 60 hours.

Horticulture

B. *Floriculture.* While the work in floriculture is designed to be of a popular and practical nature, yet a few of the more general principles upon which successful floriculture is based will be taught. The student is expected to become acquainted with common floricultural operations, such as making cuttings, mixing soils, potting, repotting, watering, germination of seed, arrangement of flowers in bouquets, etc.

Required of all Senior Preparatory women, first term, 2 hours plus 2 hours practice.

A. *Elementary Horticulture.* Introductory principles. The work will necessarily be elementary in nature yet sufficiently comprehensive to be of practical use, as well as to form a basis for advanced work for those who wish to pursue the subject further. The laboratory work is so arranged as to consist of operations most likely to be useful to the student after leaving college. The student will learn how to start new plants and ornamental shrubs, graft, bud, and top work; plant, prune, irrigate, etc.

Required of all Senior Preparatory students, second term, 2 hours plus 2 hours practice.

1. *Greenhouse Management.* Work in the greenhouse, with hot-beds, and with cold frames occupies an important place among horticultural subjects. Winter grown flowers and vegetables are attracting more attention each year. Varieties of flowers and vegetables adapted to this line of work

are studied, and due attention is given to methods of growing them for home supply and for market.

Required of Agricultural Freshmen, first term, 2 hours. Credit 24 hours.

2. *Greenhouse Construction.* The principles of greenhouse construction and their heating systems and other appurtenances; hot-beds and their uses; cold-frames, their limitations and adaptions in this region.

Required of Agricultural Freshmen, second term, 1 hour. Credit 12 hours.

3, 4. *Greenhouse Handicraft.* Application of the principles learned under 1 and 2. Practical work in arrangement and construction, inside and outside the greenhouse; transplanting from greenhouse to cold-frame and into bed and field; general greenhouse benchwork.

Required to Agricultural Freshmen, first and second terms, 2 hours practice. Credit 24 hours.

5. *Horticulture.* The whole field of propagation is covered under this heading, and includes propagation by seed, separation and division, layering, cuttings, budding, grafting, etc. General nursery management is made a strong feature of the work, and the student is familiarized with nurserymen's methods. The practice in this course affords students opportunity to propagate plants and trees by all the different methods studied in class. This course is an essential to all future horticultural work and forms the foundation for general fruit culture. The Nursery Book by Bailey is the text used.

Required of Agricultural Freshmen, third term, 2 hours plus 2 hours practice. Credit 36 hours.

6. *Forestry.* The study of wind-breaks, home planting, utility of forest plantations, and the general influence of forests on the climate and water courses. The subjects of forest reserves and forest-tree planting will also receive careful attention.

Required of Agricultural Sophomores, third term, 2 hours. Credit 24 hours.

7. *Olericulture.* General principles underlying vegetable

culture; practical work in planning and laying out vegetable gardens; preparing seed beds, planting, transplanting, cultivation, irrigation, and preparing vegetables for market. Bailey's Principles of Vegetable Culture is used as a text.

Required of Agricultural Sophomores and Domestic Science Juniors, third term, 2 hours plus 2 hours practice. Credit 36 hours.

8. *Pomology.* The work in pomology includes all the subjects relating to fruit culture. Evolution, classification, location and climate, wind-breaks; tools and tillage, plans and planting, diseases and insects, thinning, prunning, spraying, irrigation, picking, packing, and marketing are among the subjects presented. The extensive orchards and vineyards on the college farms and several commercial orchards and vineyards in the vicinity afford unusual means of illustration, and students become acquainted with varieties which are adapted to this section. Bailey's Principles of Fruit Growing is the text-book.

Required of Agricultural Juniors, first term, 5 hours. Credit 60 hours.

9, 10. *Pomology.* Laboratory practice in planting, pruning, thinning, spraying, crossing, irrigating, and note taking.

Required of Agricultural Juniors, second and third terms, 2 hours practice. Credit 24 hours.

11. *Economic Entomology.* This course is designed to give students a fair knowledge of the principal groups of insects of economic importance, especial attention being given to the study of injurious insects and the means of destroying them.

Required of Agricultural Juniors, first term, 2 hours. Credit 24 hours.

12. *Landscape Gardening.* A study of systems of landscape gardening, comprising such subject matter as laying out and planting residence grounds, railroad, hotel, and public parks; location and setting of houses and other buildings; avenues, drives, walks; trees, shrubs, flowers, lawns; beds and borders; grouping, variation, and color effects; and the general principles involved in the arrangement and planting of home grounds and farm for beauty, comfort, and utility.

Required of Agricultural Juniors, third term, 2 hours. Credit 24 hours.

13. *Plant Breeding.* The student having completed his biological studies is prepared for a discussion of plant breeding. Selection, crossing, variation, and the influence of environment, food, etc., are investigated.

Required of Agricultural Seniors, second term, 2 hours. Credit 24 hours.

14. *Floriculture.* Advance work in the care of plants for the house and greenhouse; general designing of floral decorations, etc.

Required of Domestic Science Juniors, first term, 2 hours plus 2 hours practice. Credit 36 hours.

Equipment

The farm connected with the college contains about seventy acres of land under irrigation, which is divided into fields and plots for use in demonstrating the class room work. Grasses, cereals, roots, forage, and other farm crops are grown for demonstration and study. The feeds raised on the farm are utilized in feeding experiments and for maintaining stock used in illustration of the principles taught. The Hereford, Shorthorn, Jersey and Guernsey breeds of cattle are represented in the college herd, affording opportunity for the student to become familiar with thoroughbred and grade stock. A large corral has been completed, which furnishes commodious quarters for the stock and for the storage of feeds and machinery.

The department is well equipped with the latest improved machinery. A gasoline engine, feed-grinder, fodder-shredder and cutter, mowers, harvesting machinery, thresher, bailer, plows, discs, cultivators, drills, seeders, corn planter, bordering machine, weeders, scrapers for leveling, and other modern machinery compose the equipment in this line. Special effort is made to maintain this feature of the equipment at its best in order to furnish facility for studying machinery used in this as well as other sections of the country, thus broadening the students range of observation and thought.

A pumping irrigation plant has been installed which will give opportunity for studying the possibilities in that line.

The orchards and grounds contain many varieties of apples pears, peaches, plums, etc., and over sixty varieties of grapes in addition to other small fruits.

The vegetable gardens, flower gardens, greenhouse, and cold frames, afford excellent opportunity for study and experiment. The arboretum, foresty plantations, and lawns give enlarged facilities for observation and study.

Constant additions are being made to the equipment in all the lines of work. The experiment work of the Experiment Station, carried on by this department may be made an excellent adjunct to the instruction given in class, affording as it does opportunity for the student to follow his particular bent, whether he be interested in dairying, feeding steers or sheep for market, studies in field crops or grasses, work in the orchards, vineyard, vegetable gardens, etc., or any or all of these lines in general, in order to give breadth and depth to his powers in thinking out practical problems in agriculture and horticulture.

Student Labor.—In connection with the investigations of the Department there are many opportunities which will enable industrious students to use a certain amount of their time in practical work. This labor is paid for at the rate of from 7½ cents to 20 cents per hour. It may be added, for those who are interested, that a large amount of work of this nature could have been furnished to students the past year had their desires been made known to the Professor in charge. Naturally work of this nature can be made an important aid to those who desire to pay part of their expenses while in college.

SHORT COURSES IN AGRICULTURE AND HORTICULTURE

While we advise those who expect to become professors or instructors in agricultural schools and colleges to take the four years' course in agriculture outlined above, yet we realize that there are many who for various reasons are unable to do this.

Owing to the demand for trained men to fill positions as superintendents of ranches and dairies, and believing that a territorial institution should offer every possible encouragement to those who desire to fit themselves for their chosen lines of work, a two years' course and a twelve weeks' course in agriculture and horticulture have been arranged.

TWO YEARS' COURSE IN AGRICULTURE

In order to be admited to this course students must be at least sixteen years old and possess a good knowledge of Arithmetic, Reading, Spelling, United States History, Grammar and Composition.

Two Years' Course in Agriculture

FIRST YEAR

FIRST TERM	SECOND TERM	THIRD TERM
English, 4 Mathematics, 5 Live Stock, 2 Greenhouse Management, 2 Greenhouse Handicraft, 2 P Economic Ent., 2 Carpentry, 6 P or Elective, 3	English, 4 Mathematics, 5 Live Stock, 2+2 P Princ. of Breeding, 3 Horticulture, 1+2 P Carpentry, 6 P or Elective, 3	English, 4 Elementary Chemistry, 4 Live Stock, 2 Horticulture, 2+2 P Botany, 4 Elective, 3
SECOND YEAR		
English, 5 Commercial Arithmetic, 5 Pomology, 5 Agr'l Chemistry, 3+6 P	English, 5 Bookkeeping, 5 Soils and Crops, 2 Stock Feeding, 5 Soil Physics, 8 P	English, 5 Soils and Crops, 4 Olericulture or Vegetable Growing, 2+2 P Bookkeeping, 5 Pomology, 2 P

This course is designed to prepare young men to become practical farmers and ranchmen, and to be able to fill positions as superintendents of ranches and large estates. The course includes much of the work of the regular four years' course in agriculture, besides requiring a number of other studies which have been selected as especially valuable for the student. For information as to the character of the work in each study see discussion under the four years' course in agriculture.

TWELVE WEEKS' COURSE IN AGRICULTURE AND HORTICULTURE

There are many young men who for various reasons are unable to spend two or more years at college. In order to meet the needs of this class of students a special course of twelve weeks has been opened for young men who desire to take advantage of the opportunity for a short period of training. The work of the course is practical throughout. Only those lines of work have been selected that are of the most value to the student. The work consists almost wholly of lectures and practice. The lectures consist of a discussion of the theory of the subject, while application of the theory will be made during the practice hours. For this purpose much time will be spent by the student in the orchard, garden, and field, in the greenhouse, and in the management of the hotbeds and cold-frames.

This course will be given each term of the college year with only sufficient variation in the subject matter taught to suit the seasons of the year.

The course in each term will continue twelve weeks. The first term's course will begin September 7, 1904. The second term's course will begin November 28, 1904. The third term's course will begin March 6, 1904.

Requirements for Admission. Students entering this course must be at least sixteen years of age. There are no entrance examinations required.

Twelve Weeks' Courses

FIRST TERM	SECOND TERM	THIRD TERM
Orchard and Flower Garden, 15 P....................	Greenhouse, Hot-beds and Cold frames, 15 P.........	Garden and Field, 15 P....
Lecture in Pomology, 4......	Lecture in Pomology, 4.....	Lecture in Vegetable Growing, 4..............
Lecture in Live Stock, 2....	Lecture in Economic Entomology, 2................	Lecture in Soils and Crops, 2.................
English, Arithmetic or other studies, 10.................	English, Arithmetic or other studies, 10.................	English, Arithmetic or other studies, 10........

BIOLOGY AND GEOLOGY

PROFESSOR WOOTON

Biology

The regular required course in biology is only elementary and general in character, and designed to present the general principles of the subject to the student and at the same time introduce him to a limited number of types of the various larger classes of animals and plants. For this work the lecture and laboratory method is used.

A. Botany. A general treatment of the flowering plants, their structure, functions of parts, simpler classification, distribution and economic uses.

Required of all Senior Preparatory students, third term, 4 hours.

1. *Zoology.* Fundamental principles of life; elementary study of the cell, its parts and functions; introductory treatment of the effects of variation, heredity, environment, and use; types studied are invertebrate animals, most of the time being devoted to the gross anatomy and comparative morphology. Laboratory manual, Pratt's Invertebrate Zoology.

Required of all regular Freshmen (except Mechanical Engineers) first term, 2 hours plus 6 hours practice. Credit 60 hours.

2. *Zoology.* Continuation of the study of animal life. Types examined are the higher Invertebrates and Vertebrates. Various laboratory manuals are used in the laboratory work, while Parker and Haswell's Text Book is the most important reference book.

Requirements and credit same as in Biology 1, second term.

3. *Botany.* The comparative morphology of plants; studied by means of representative types of the larger classes. The phylogenetic development of the plant kingdom is set forth as clearly as the time will allow. Text book, Campbell's Evolution of Plants.

Requirements and credit same as in Biology 1, third term.

4. *Bacteriology.* Lectures and demonstration work on bacteria of water, air, soil, and foods and those causing fermentation and disease; preparation of culture media and cultures;

staining and determining species. DeBarry, Sternberg, and Newman's books are used for reference.

Required of Agricultural and Domestic Science Sophomores, third term, 2 hours. Credit 24 hours.

5. *Plant Physiology.* Lectures and laboratory practice on relations of plants to their environmental stimuli; composition of the plant body, its changes, constructive and destructive. Sachs, Detmer, MacDougal, and Ganong used as reference books.

Required of Agricultural Juniors, third term, 4 hours, or equivalent in practice. Credit 48 hours.

6. *Human Physiology.* Lectures, demonstrations, and recitations on the anatomy, histology, and physiology of the human body. Text book, Martin's Human Body, Advanced Course.

Required of Juniors of the General and Domestic Science Courses, third term, 5 hours. Credit 60 hours.

Elective Courses are offered by this department in either zoology or botany, the particular branch of either subject being largely at the option of the student. Special facilities for the study of the flowering plants of New Mexico are to be obtained at this institution. All students electing work in this department must have completed Biology 1, 2, and 3. Minimum, 6 hours of practice; credit 36 hours; more time in proportion. All such electives will be accepted as minors for graduate work. Students doing major graduate work in this department must have done one year of elective work in biological subject besides Biology 1, 2, and 3, and for that major must do not less than ten hours per week for one year. Arrangements for all elective and graduate work must be made with the head of the department.

Equipment

This department occupies three rooms on the upper floor of the Science Hall. One room is used solely as a laboratory for biology and physiology. It is equipped with gas, water, tables, cases, dissecting and compound miscroscopes, microtomes, necessary instruments and materials, charts, casts, bacteriological incubators, ovens and a general assortment of apparatus, glassware, and reagents for all kinds of biological work. The second room is used as the herbarium. In it are tha college herbarium of about 10,000 sheets and the private herbarium of the head ef the department, about 3,000 sheets. These two herbaria contain representatives of perhaps 85 percent. of the species of flowering plants and ferns of the Territory of New Mexico. There are also about 1,000 specimens of fungi and algae represented, the greater portion of these being named fungi of economic importance. The herbarium has abundant case and table room. The third room is used as an office for the department, and contains the departamental library of about 400 volumes, besides numerous pamphlets. Several of the more important botanical periodicals are to be found here.

Geology

The work in this subject is taught by lectures and recitations with prescribed text-book reading. Ocasional field work is arranged for as often as facilities with permit.

1. *Dynamical Geology.* Includes dynamical, structural, and physiogpaphic geology, some considerable stress being laid upon rocks, rock-making minerals, and their derivative soils. Scott's Introduction to Geology and LeConte's Elements of Geology are used as texts.

Required of all Seniors, second term, 5 hours. Credit 60 hours.

2. *Historical Geology.* A detailed treatment of the geological history of the earth together with some elementary work in paleontology.

Required of General Course Seniors, third terms 5 hours. Elective to students who have taken Biology 1, 2, and 3 and Geology 1. Credit 60 hours.

Equipment

The department of geology occupies one room on the second floor of the Science Hall, and has at its disposal a collection of the common minerals, the U. S. Geological Survey collection of rocks, a Bausch and Lomb petrographic microscope, a number of fossils and a departmental library including most of the publications of the U. S. Geological Survey besides the best modern texts and references on the subject.

PHYSICS

PROFESSOR TINSLEY

Physics

This course in General Physics is designed to present a survey of the subject and acquaint the students with the fundamental conceptions of matter and energy, their laws, and the practical application of these to the problems of engineering, agriculture, etc. The method of instruction is by recitations, lectures, demonstrations, and laboratory practice.

A. Introductory principles of the subject.

Required of all Junior Preparatory students, first half year, 5 hours. Professor Richards.

1. The properties of matter, mechanics of solids and liquids.

Required of all regular Sophomores, first term, 4 hours plus 2 hours practice. Credit 60 hours.

2. Study of sound and light.

Required of all Shophomores (except Agricultural students), 4 hours plus 2 hours practice, second term. Credit 60 hours.

3. Study of heat, electricity, and magnetism.

Requirements and credit as in Physics 1, third term.

4, 5, 6. Advanced work, principally experimental, adapted to the needs of the student. Elective for students who have completed 1-3, and a minor for graduate students.

3 hours recitation or 6 hours practice required as a minimum. Credit for 3 hours is 36 hours, additional time in proportion.

7, 8, 9. Continuation of 4, 5, 6. Elective for those who have completed 1-6 and a major for graduates.

Time requirements and credit as in 4–6.

Soil Physics

This course is designed to meet the increasing demand among agriculturists for a more intimate and extensive acquaintance with the soil. It also fits students to become specialists in soil work. In this line the demand for trained men now exceeds the supply for the various soil surveys which are being undertaken by the state and national governments.

1. A brief survey of the origin and physical characters of soils by lectures and recitations; with laboratory and field practice in soil sampling, determinations of moisture, salt content, water holding power, mechanical analyses, classification, and mapping.

Required of Agricultural Sophomores, and elective for other students, second term, 8 hours practice. Credit 48 hours.

2, 3, 4. Advanced work on soils. Elective for those who have completed Soil Physics 1, and as a minor for graduate students.

Minimum 6 hours practice. Credit for minimum 36 hours.

5, 6, 7. Advanced work on soils. Elective for those who, wishing to specialize in this line, have completed 1–4, and as a major for graduate students.

Time requirements and credit as in 2-4.

Meteorology

1. Lectures and recitations with accompanying laboratory practice. A study of the common meteorological instruments, their construction and uses, and those meteorological phenomena having most direct bearing on the agriculture of New Mexico.

Required of Agricultural Juniors and elective for other students, first term, 2 hours. Credit 24 hours.

Equipment

This department occupies three rooms on the second floor of the Science Hall.

The physical laboratory is a large room (50x20 ft.) on the south side of the building, well adapted to physics work. It has in it a dark room, supplied with gas and water, for photometric and photographic work, wall cases for the storage of apparatus, lecture table, and wall desks for student work.

The room devoted to soil work is well fitted with work desks, tables, and shelving and is supplied with gas and water.

Between the other two is a small room used for some of the meteorological apparatus and for storage.

The physical laboratory is quite well supplied with apparatus for the usual class demonstrations and practice. In addition there are a number of pieces of finer apparatus for advanced work; e. g. Atwood's machine, balances, barometer, thermometers, including one of Greene's standards, spectrometer, polariscope, steriopticon, photographic outfit, Rowland D'Arsonval and tangent galvanometers, resistance box, standard cell, and Wheatstone bridge.

The soil physics laboratory is especially well equipped, this being one of the prominent lines of investigation of the Agricultural Experiment Station. The equipment includes electrical apparatus for the determination of "alkali" in soils and waters, electrical soil hygrometers and accessories, soil samplers, drying ovens, balances and weights; shaker, water motor, and centrifuge for mechanical analyses of soils, and the necessary glass and platinum ware and reagents for carrying on investigations of the physical properties of soils and their salt content.

There is also a current meter and register for use in water measurements.

For the work in meteorology, in addition to an evaporation tank and anemometer, there are the usual instruments furnished by the U. S. Weather Bureau to voluntary observers.

CHEMISTRY, MINERALOGY, METALLURGY, AND ASSAYING

PROFESSOR HARE
MR. WOODRUFF

This department offers exceptional facilities for work in these lines. The work required of all students in the Junior Class is a course in the fundamental principles of general chemistry, the subject being presented by lectures and recitations with demonstrations in the class-room and applications of the principles by each student in the laboratory.

Students in the Agricultural Course are required to do an extra year of work in the chemistry of agricultural products, soils, waters, etc.

In Assaying, a year's course is offered to those who wish to become practical assayers, instruction being given in both wet and dry methods in common use.

The instruction in Mineralogy is by both descriptive and determinative methods, while in Metallurgy lectures and recitations, with occasional visits to mines and smelters in this vicinity, is the plan followed. One term in the elements of chemistry is required of all students in the Senior Preparatory year.

Elective courses are offered, during the second year in chemistry, in the different branches of advanced work.

A. *Elementary Chemistry.* The study of the subject as outlined in an elementary text-book, supplemented by frequent experiments performed before the class. The chemistry of this term is intended as a preparation for the different branches of science taught later.

Required of all Senior Preparatory students, third term, 4 hours.

1. *General Chemistry.* A study of the principles of general chemistry by means of lectures and demonstrations, supplemented with laboratory practice.

Required of all Juniors and Assaying Students, first term 3 hours plus 4 hours practice. Credit 60 hours.

2. *General Chemistry.* Continuation of the previous term's work.

Required of all Junior and Assaying students, second term, 2 hours plus 6 hours practice. Credit 60 hours.

3. *Qualitative Analysis.* The work this term is entirely in the laboratory. Upon the completion of this terms work students are expected to be able to analyze ordinary compounds.

Required of all Juniors and Assaying students, third term, 8 hours practice. Credit 48 hours.

4. *Agricultural Chemistry.* The work consists of a text book study of such subjects as animal nutrition, plant food, and fertilizers, as presented in Snyder's "Chemistry of Soils and Fertilizers" and "Chemistry of Plant and Animal Life."

Required of Agricultural Seniors, first term, 3 hours. Credit 36 hours.

5, 6. *Agricultural Chemistry.* Laboratory work in the analysis of agricultural products, waters, soils, etc.

Required of Agricultural Seniors, second and third terms, 6 hours practice. Credit 36 hours.

7. *Quantitative Analysis.* Laboratory practice in general quantitative analysis. During this term, students receive instruction in the use of the balance and in general quantitative manipulation. Each student is required to make some of the fundamental quantitative determinations, thus becoming familiar with quantitative processes by actual practice.

Elective for all students who have completed Chemistry 1—3, first term, 6 hours practice. Credit 36 hours.

8. *Advanced Chemistry.* The nature of the work done during this term is left largely to the choice of the student; but, in general, usually consists of laboratory work along some line of original investigation. The work, especially during the latter half of the term, should be along the line leading to the thesis work to be taken up the next term.

Elective for all students who have completed Chemistry 7, second term, minimum time 6 hours practice. Credit 36 hours for minimum time; more in proportion.

9. *Thesis.* Students, who elect chemistry for their thesis work, are required to take up some line of original investiga-

tion and prepare a paper on the same. The work is principally in the laboratory, supplemented by a course of outside reading. While but one term is required for thesis work it is much better to select the subject in the second term and devote a considerable portion of that term to the work.

Required of all Seniors who choose a chemical thesis, third term; 10 hours practice as a minimum.

10, 11, 12. *Graduate Work.* Advanced work in chemistry, leading to the degree of M. S., is offered to graduate students. The character of the work selected is left largely to the choice of the student, subject to the approval of the head of the department. The work taken up, however, must consist largely of original research along some line of chemical investigation. It practically amounts to a continuation of work of the same character as the thesis work of the Senior year, although the subject may be different.

The minimum time requirement for this work as a major is 10 hours practice per week throughout one year.

1. *Mineralogy.* A laboratory study of the more important minerals, special attention being given to the ores and other minerals of commercial value. The more important rock-making minerals are studied as completely as the time devoted to the subject will permit. Dana's System of Mineralogy and other standard works are used as reference books.

Required of all (except Agricultural) Seniors and Assaying students, first term, 10 hours practice. Credit 60 hours.

1. *Metallurgy.* The work is presented in the form of lectures and recitations, using Hiorn's Text-book of Elementary Metallurgy, with a course of supplementary required reading.

Required of all Senior Mechanical Engineers and Assaying students second term, 4 hours. Credit 48 hours.

1. *Assaying, Dry Methods.* For the accommodation of those of our students who desire to elect the subject of assaying, instruction is given in the fire assay of gold, silver, and lead ores. Each student is assigned furnaces, and is supplied with the necessary crucibles, scorifiers, material for making fluxes, etc. Besides other necessary apparatus, he also has

the use of balances for weighing out charges, mixing fluxes, and weighing gold and silver beads.

Required of all Assaying students, and elective for others who have completed Chemistry 1—3, first term, minimum time 6 hours. Credit 72 hours.

2. *Assaying, Wet Methods.* The study of the quantitative determination of copper, iron, lime, silica, etc., by the best volumetric and gravimetric methods.

Required of all Assaying students, and elective for others who have completed Assaying 1, second term, minimum time 6 hours. Credit 72 hours.

3. *Assaying, Research Work.* The work relates chiefly to the composition and metallurgy of ores. Students are encouraged to make original studies of methods for the extraction of metals from their ores, in order to determine which are most applicable and economical in particular cases.

Required of all Assaying students, and elective for others who have completed Assaying 2, third term, minimum time 6 hours. Credit 72 hours.

The work in assaying is principally in the laboratory, but is supplemented by a course of reading in standard books on assaying, analytical chemistry, etc.

The time required during the year, of students taking assaying, is six hours or equivalent practice per week. It will usually be possible, however, to arrange for extra work; and students are strongly urged to do so when possible, as the amount of knowledge gained in this subject depends almost entirely upon the time devoted to it in the laboratory.

Students taking assaying are also required to take the regular work in chemistry, geology, mineralogy, and metallurgy.

Students will not be admitted to the course in assaying, unless they have had sufficient preliminary training to enable them to carry the work.

Equipment

The chemical department occupies all of the lower floor of the Science Hall with the exception of one room. The college work and station work have separate quarters. Six good sized rooms, and a smaller store room, are used in the intruction of students, and two rooms and a store room, for the station work. A small brick building stationed at a safe distance from the main building, is also used by the department as store house for gasoline and other combustible and explosive substances.

The rooms set apart for use in the instruction of students are as follows:

1. A large qualitative laboratory for students beginning the study of chemistry. This laboratory is fitted with work desks which are supplied with gas, water, and drain, and have drawers and lockers with combination locks. The qualitative laboratory also contains, among other things, a sink, and a fume closet for work in which noxious gases are present.

2. A quantitative laboratory for the use of advanced students. This laboratory is supplied with two thoroughly equipped work desks, fitted with gas and water pipes, a drain trough through the center, a bottle rack on the top, and drawers and lockers with combination locks. This laboratory also contains a first class fume closet and a sink.

3. A laboratory for work in Metallurgy and Mineralogy. This is a large room with a well equipped work desk twenty feet long, a brick and sheet iron covered furnace table with four gasoline furnaces and other accessories to make complete a laboratory of this character.

4. A fire-proof assay laboratory, which contains six gasoline crucible furnaces and two muffle furnaces. This laboratory is also supplied with a Bosworth ore crusher; a sampling plate, a complete set of sieves, crucibles, tongs, cupel moulds and other accessories necessary in a well equipped laboratory of this character.

5. A weighing room, opening into the quantitative and assay laboratories. This room is fitted with a substantial balance table mounted on brick piers in contact with the ground, a high grade assay balance, two chemical balances, and a heavier balance for rough weighing. This room is also

provided with a series of bins for storing the fluxes, assay charges, etc., and with a case for sample bottles.

6. A lecture room, supplied with a lecture desk, a sink, water, gas, charts, and other accessories.

7. A conveniently located store room for chemicals and general laboratory supplies for students.

The laboratories used for the chemical work have brick walls, and wooden ceilings, fourteen feet high. Each laboratory is supplied with one or more ventilating flues which aid in the removal of fumes and in the ventilation of the rooms. The general equipment of the laboratories has been very materially increased, and is modern and first-class in every particular.

The laboratories fitted up for the accommodation of the Experiment Station work contain, among other things, three work desks supplied with gas, water, and air exhaust pipes for rapid filtration, a commodious hood to carry off noxious gases, apparatus for the determination of nitrogen by the Kjeldahl method, a tritation shelf and system of burettes, and a large still for the preparation of distilled water. The Station equipment also includes a balance table mounted on brick piers in contact with the ground, a Herzberg and Kulhmann short beam automatic analytical balance, an Ainsworth No. 1 assay balance, two Springer torsion balances, a Scheiblers polariscope, an imported mill for grinding samples, and over 800 hundred dollars worth of platinum ware.

The chemical department also has a good collection of 700 mineral specimens for class use, and a department library of 350 reference books and periodicals costing $1,800.

The gas supply for the department is furnished by a 200 light, Matthews gasoline gas machine, which is provided with an automatic mixer whereby the gas is kept uniform in quality.

The water supply is furnished by a deep well on the college grounds, the water of which is of much better quality than most of the well waters of the valley.

Fees. See article on "Fees and Deposits" page 87.

DOMESTIC SCIENCE

PROFESSOR HORNING
MISS FOSTER

This course is especially designed to meet the needs of the young women students by giving them both practical and scientific instruction in things pertaining to the home. The course covers four years and is practically the general scientific course with slight modifications for the purpose of admitting the Domestic Science branches, which are so directly dependent upon science that a satisfactory course cannot be arranged independently of it.

In the department of cooking the course covers a wide range from the simplest knowledge of the subject to the making of pastry, canning fruit, and the other more difficult cookery required in the necessary catering for a home. Some knowledge of food principles and combinations is required before the regular subject of dietetics is taken up in the senior year, which with the exception that the use of the chafing dish is taught, is entirely given up to the scientific and theoretical side of the subject. Some knowledge of catering for the sick, and of proper serving of foods is given during the junior year.

Sewing comprises an important part of the course, and begins with the teaching of stiches, plain sewing, darning, and mending. After plain sewing has been mastered, the student begins the making of under garments and shirt waists. In the Senior year dressmaking is taught, including the use of charts and the fitting of dresses. The course also includes some knowlege of fancy work, the making of lace and embroideries, etc. The endeavor is so to combine theory and practice that graduates of the department may be materially aided in the administration of the household.

G. E. *Plain Cooking.* Practical instruction in simple cookery.

Required of all Senior Preparatory women, first and second terms, 4 hours practice.

F. D. *Sewing.* Instruction in plain sewing, mending, darning, and the making of plain garments.

Required of all Senior Preparatory women, first and second terms, 4 hours practice.

C. *Cooking.* Lessons in cooking continued.

Required of all Senior Preparatory women, third term, 2 hours practice.

B. *Sewing.* Practice in plain sewing.

Required of all Senior Preparatory women, third term, 2 hours practice.

A. *Hygiene.* Lectures and recitations in physiology and hygiene.

Required of all Senior Preparatory women, third term, 1 hour.

1, 3. *Cooking.* The study of food principles and the composition of foods is given in conjunction with cooking.

Required of Domestic Science Sophomores, second term, 6 hours practice; third term, 2 hours practice. Credit 48 hours.

2, 4. *Sewing.* Plain sewing continued; the making of undergarments and shirt waists.

Required of Domestic Science Sophomores; second and third terms, 4 hours practice. Credit 48 hours.

5. *Canning and Preserving.* Preserving and canning fruit, jelly making, and pickling.

Required of Domestic Science Juniors, first term, 6 hours practice. Credit 36 hours.

6. *Advanced Cookery.* Advanced work consisting of more complicated cooking.

Required of Domestic Science Juniors, second term, 8 hours practice. Credit 48 hours.

7. *Invalid Cookery and Serving.* Cooking for the sick with particular application to special diseases. A brief waitress course including lectures and practice in the proper serving of food.

Required of Domestic Science Juniors, third term, 6 hours practice. Credit 36 hours.

8. *Dietetics.* Arrangement of daily dietary and study of food combinations with special application to disease.

Required of Domestic Science Seniors, first term, 2 hours. Credit 24 hours.

9. *Dressmaking.* Adapting and using of patterns, fitting and making of dresses.

Required of Domestic Science Seniors, first term, 2 hours practice. Credit 12 hours.

10. *Home Sanitation.* Lectures on heating, lighting, and ventilation. Reference book, Ellen H. Richards' Home Sanitation and Waring's How to Drain a House.

Required of Domestic Science Seniors, second term, 2 hours. Credit 24 hours.

11. *Dressmaking.* Cutting, fitting, and finishing.

Required of Domestic Science Seniors, second term, 2 hours practice. Credit 12 hours.

12. *Chemistry of Foods.* Chemistry of some of the commoner foods. Lectures and recitations.

Required of Domestic Science Seniors, third term, 3 hours. Credit 36 hours.

13. *Chafing-dish Cookery.* Instruction with practice in the use of the chafing-dish.

Required of Domestic Science Seniors, third term, 2 hours practice. Credit 12 hours.

14. *Dressmaking.* Practice in dressmaking.

Required of Domestic Science Seniors, third term, 2 hours practice. Credit 12 hours.

Equipment

The kitchen laboratory is provided with individual gas stoves on desks fitted with small closed cupboards containing those cooking utensils, of which the students are in constant need, a convenient sink, a refrigerator, cupboards filled with dishes for serving, and all the utensils and conveniences found in the best equipped kitchens. There is also a large range, food charts, and charts illustrating the cuts of meat.

The sewing room is equally well equipped with all the conveniences necessary to the department; three machines, cutting tables, lap boards, and sewing chairs. A fitting room is separated from the main sewing room by portieres, and furnished with mirror, washstand, couch, and other necessaries.

The department library contains many books of reference on all phases of the household including many of the latest and best books on dietetics as Sir Gilman Thompson's "Practical Dietetics," "Diet in Health and Disease," Yeo, "Food and Feeding," Thompson, "How to Feed Children," Hogan, "On the Chemistry of Foods," William's "Chemistry of Cooking," "Chemistry of Foods" by Bell, Mrs. Richards, "Chemistry of Cooking and Cleaning," and others; books on home sanitation, drainage, bacteriology, carving, and sewing, and some books on sewing and laundry work and physiology and others of general interest to the work. The best magazines on both domestic economy and domestic art are to be found in the department, making altogether very well equipped class rooms.

ENGLISH

PROFESSOR MACARTHUR
PROFESSOR HADLEY
MISS BAKER

The work of the English department has two main objects: first, the development of an ability on the part of the students to express themselves correctly and clearly; and second, promotion of those ideas of culture—literary and otherwise—which will enable them, when graduated from the college, to hold their own as educated men and women among the members of their own and other professions. As might be expected in an institution of this character, emphasis is placed on the practical side of English. This fact, however, does not exclude a thorough consideration of the aesthetic phases of the work.

No student will be admitted to college classes in English whose knowledge of spelling and grammar is notably deficient.

C, B, A. *Literature and Composition.* A discussion of literary principles, accompanied by the careful study of masterpieces of Burke, Macaulay, Milton, and Shakspere. For general reading a selection will be made from the works of Addison, Carlyle, Coleridge, Eliot, Goldsmith, Lowell, Scott, Shakspere, and Tennyson. A thorough drill in the elements of English Composition, together with regular and systematic practical work, forms one of the features of this course.

Required of all Senior Preparatory students, throughout the year, 4 hours.

1, 2, 3. *Composition and Rhetoric.* After completing this course, the student should have a thorough and practical knowledge of Composition and of the elementary principles of Rhetoric. In this work special stress is laid upon the form, style, and thought of the written work. Text-book—Lockwood and Emerson's Composition and Rhetoric.

Required of all Freshmen, throughout the year, 5 hours. Credit 180 hours.

4. *English Literature.* The English Drama; a reading course, accompanied by lectures upon the history of English literature.

Required of all Sophomores, first term, 5 hours. Credit 60 hours.

5. *English Literature.* English Poetry from Chaucer to Tennyson.

Required of all Sophomores, except those in the Agricultural course, second term, 5 hours. Credit 60 hours.

6. *English Literature.* English Fiction, including the study of works by Defoe, Goldsmith, Walpole, Mackenzie, Austen, Scott, Eliot, Thackeray, Bronte, Dickens, Hawthorne, and Stevenson.

Required of all Sophomores, except those in the Agricultural course, third term, 5 hours. Credit 60 hours.

7. *Classification.* Reading: 19th century historians; von Holst, Henry Adams, Mahan. Use of books: the making of a dictionary catalogue of the magazines in the library. Library work: the use of the card catalogue which includes writing a few sets of cards. Particular attention will be given to penmanship. Additional practice work may be required of individual students.

Required of all Juniors, first term, 1 hour. Credit 12 hours.

8. *The Bibliography of Literature.* Reading: selections on social and economic subjects; Wycoff, Riis, Addams, Van Voorst. Use of books: making a bibliography, the subject being assigned. Library work: finding the answers to questions which are asked in the library from time to time. Kroeger's Guide to the study and use of reference books and Flint's Manual for theme writers are used as texts.

Required of all Juniors, second term, 1 hour. Credit 12 hours.

9. *The Bibliography of Literature.* Reading: selections from American naturalists; Audubon, Burroughs, Long. Use of books: each student makes a bibliography selecting the subject himself.

Required of all Juniors, third term, 1 hour. Credit 12 hours.

10, 11, 12. *Advanced Composition.* A theme course, accompanied by a thorough study of the larger rhetorical principles, and by the reading of selections from authors whose works are considered models of style.

Required of all Seniors throughout the year, 2 hours. Credit 72 hours. This course may be taken by students of the Junior year.

13, 14, 15. *Technical English.* This course is designed to meet the needs of students desiring to pursue some special line of writing. The work will consist, for the most part, of individual conferences with the instructor, in which way deficiencies may best be remedied, and the fullest development of the student secured.

Elective. Open to students of the Junior and Senior years, throughout the year, 3 hours. Credit 108 hours.

16. *Commercial English.* Intended for those students who wish a practical training in business English. A rapid drill in spelling, discussion of common errors in grammar and syntax, the principles of composition, letter writing from models.

Required of all students in the first year Stenography course, first term, 5 hours. Credit 60 hours.

17. *Commercial English Continued.* Business correspondence, the theory and writing of advertisements, telegrams, discussion of systematic devices.

Required of all students in the first year of Stenography course, second term, 5 hours. Credit 60 hours.

Equipment

The general library of the college offers exceptional advantages to the students of this department. This library is not only the finest in the Southwest, but, from the standpoint of the English student, it can hold its own with many found in well known institutions in the East. It contains all the English masterpieces, and has a particularly large representation of American literature. In addition to this, it receives in its accessions copies of all contemporary works which receive the favorable notice of the press. The most important literary magazines come regularly to it, and in this way the students have every opportunity of keeping themselves informed as to the most recent movements of literary thought.

There are several flourishing literary societies in the college, and students are urged to seek admission to these and to engage actively in their work.

During the coming year a dramatic club will be formed under the auspices of this department for the purpose of giving those students who wish to join it the opportunity of receiving training in vocal expression. Students of the department during the past year presented, with great success, the comedy, "London Assurance," of Dion Bouccicault, and an original farce comedy entitled "In the School of Too Much Trouble."

It is expected, also, that some lectures devoted to art and travel will be given at intervals throughout the year in connection with the work of this department.

ENGLISH BY CORRESPONDENCE

This year it has been decided to extend the work by correspondence begun by the college last year, and to offer courses in English by this method, in addition to those already offered in Spanish.

It has been found in other institutions that English lends itself most readily to work of this kind, and that the most satisfactory results are attained. Each course offered aims generally to cover the ground of one term of college work, and upon completion of the course, the student will receive credit for such work, as a regularly registered student of this college.

Plan of Work

The intending student will first send the tuition fee of $15.00 to the registrar of the college, stating the course which he intends to take. He will then receive by mail the first of a series of forty instruction sheets. These sheets give directions for study and ask questions which the student is expected to answer and return to the college. He will also make mention of such difficulties as he may have encountered in doing his work. Then he will receive from the college the second lesson sheet, and the correction of his answers to the first. Students pay for their books and for the postage stamps employed in the correspondence. The books may be ordered through the Department of English of the college. Estimates and prices will be furnished on application.

Regulations

1. Correspondence courses may be begun at any time of the year, but they must be completed within one year from the date of registration. Extension of time to the amount of three months will be granted only on account of sickness or other serious disability.
2. No fees will be refunded on account of a student's inability to continue a course for which he has registered.
3. The student must forward with each lesson sufficient postage to pay for return of same.

Courses

1. *English Composition.* An elementary course dealing with the principles of composition. The work consists of the study of a prescribed text-book, and the writing of forty themes upon assigned topics.
2. *Introduction to Literature.* English literature, and the reading of selected works of Macaulay, Milton, Coleridge, Eliot, Lowell, and Scott.
3. *Introduction to Literature.* Continuation of the preceding with reading of selected works of Burke, Carlyle, Addison, Goldsmith, and Shakspere.

Upon completion of courses 1, 2, and 3, the student will receive credit for the work in English of the Senior Preparatory year in the college.

4. *Rhetoric and Composition.* A theme course accompanied by the writing of a systematic series of exercises. *Prerequisite No. 1 or its equivalent.*
5. *Rhetoric and Composition, continued. Upon completion of 4 and 5 the student will receive credit for the work in English of the Freshman year in college.*
6. *The English Drama.* The reading of selected plays of Shakspere, Jonson, Goldsmith, and Sheridan.

7. *English Poetry.* From Chaucer to Tennyson,

8. *English Fiction.* The reading of works by Defoe, Goldsmith, Walpole, Mackenzie, Austen, Scott, Eliot, Thackeray, Bronte, Dickens, and Stevenson.

Pre-requisite for 6, 7, and 8, courses 2 and 3, or their equivalent.

Upon completion of courses 6, 7, and 8 the student will receive credit for the work in English of ths Sophomore year in college.

9. *Commercial English.* This course is designed for the benefit of those who wish practical training in the writing of business letters, advertisements, telegrams, and such forms of composition as may prove useful in a business career.

In addition to the above, informal courses will be offered in Advanced Composition, or in the works of any particular author or authors, or in the history of any special period of literature which may be desired by the student. Work of this kind may be readily adapted to the needs of literary clubs.

For further particulars address:

THE DEPARTMENT OF ENGLISH,
N. M. Coll. of Agr. and Mech. Arts.,
Mesilla Park, N. M.

HISTORY AND PHILOSOPHY

PROFESSOR HADLEY

History

The ends aimed at in teaching this subject are: (1) to acquaint the student with the most important facts of Ancient, Mediæval, and Modern History; (2) to aid him in interpreting these facts into the prevailing thought of the people at the time of the events; (3) to direct the student's attention to such literature as will assist him in getting a vivid idea of the life of the times of which the history treats.

B. *General History.* Most important points in the history of oriental peoples, and of Greece; the reading of, at least, one prescribed volume relating to said history, and the writing of an acceptable paper on said volume. Leading text-book, Wolfson's Essentials in Ancient History.

Required of all Senior Preparatory students, first term, 4 hours.

A. *General History.* History of Rome in outline, and the reading and abstracting of, at least, one prescribed book.

Required of all Senior Preparatory students, second term, 4 hours.

1. *General History.* History of the Middle Ages, and the reading and abstracting of one prescribed volume. Leading text-book, Monro's History of the Middle Ages.

Required only of students in the General course, third term, Sophomore year, 5 hours. Credit 60 hours.

2. *History of Civilization.* Introduction to the more important elements that have influenced existing civilizations, and explanation of their fusion. A careful study of European civilization as outlined by Guizot and supplemented by frequent lectures.

Required of Domestic Science and General Seniors, second term, 5 hours. Crebit 60 hours.

3, 4. *English History.* A study of the history of the English people, with special reference to dominant factors of Anglo-Saxon civilization.

Elective to all students who have completed history B and A or their equivalent first and second terms, 5 hours. Credit 60 hours per term. Students who elect one term will be expected to take both.

5. *American History.* Special period of American history.
Elective; third term, 5 hours. Credit 60 hours.

Philosophy

1. *Elementary Psychology*, embracing topics equivalent to those found in Halleck's Psychology and Psychic Culture; taught by recitations supplemented by lectures.
Required of Domestic Science and General Seniors, first term, 5 hours. Credit 60 hours.

2. *Applied Psychology.* In the study and mastery of some branch or branches of common school education the principles of elementary psychology will be constantly applied. This course will be of special benefit to those intending to teach.
Elective to students who have taken Philosophy 1, second term, 5 hours. Credit 60 hours.

3. *Theory and Practice of Teaching*, embracing the organization and administration of a school: the rights and duties of boards, teachers, pupils, parents, etc.
Elective to students who have completed Philosophy 1 and 2, third term, 5 hours. Credit 60 hours.

Equipment

The department of history is reasonably well equipped. It possesses MacCoun's Ancient and Classical Charts, MacCoun's Mediæval and Modern Charts, Johnston's Imperial Chart of the World, Johnston's Imperial Map of Europe, Appleton's Universal Cyclopedia and Atlas, (12 volumes), Larned's History for Ready Reference, (5 volumes), Ridpath's History of the World, (4 volumes), and other works.

Those who pursue the courses in philosophy will have the opportunity of observing the methods practiced in the preparatory school.

The department offers rather extended courses in history, theoretical and applied psychology to those students of the General and Domestic Science courses who may choose to elect its work. To prospective teachers the work in psychology is of particular importance.

MATHEMATICS AND ASTRONOMY

PROFESSOR HAGERTY

Mathematics

C, B, A. *Algebra.* General review from the beginning of algebra to evolution; theory of exponents, radicals, quadratic equations, ratio, proportion, variation, progressions, imaginary quantities, inequalities, variables and limits, the binomial theorem (positive integral exponents), and logarithms. Text-book Milne's Academic Algebra.

Required of all Senior Preparatory students, throughout the year, 5 hours.

1, 2. *Plane Geometry.* Nearly one-third of the time is given to original exercises. Text-book Wentworth's Plane and Solid Geometry.

Required of all Freshmen, first and second terms, 5 hours. Credit 120 hours.

3. *Solid Geometry.* In order to add interest to the study of this subject and to fix in the mind the propositions demonstrated, many numerical exercises are given.

Required of all Freshmen, third term, 5 hours. Credit 60 hours.

4. *Plane Trigonometry.* Some practical problems are given requiring students to use a surveyor's transit for measuring both horizontal and vertical angles. This course includes an introduction to spherical trigonometry.

Required of all Sophomores, first term, 5 hours. Credit 60 hours.

5. *Higher Algebra.* Indeterminate equations, undetermined coefficients, binomial theorem (any exponent), permutations and combinations, series, and theory of equations.

Required of Sophomore Mechanical Engineers, elective for all other students who have completed Mathematics 4, third term, 5 hours. Credit 60 hours.

6. *Analytic Geometry.* Loci and their equations, straight line and circle, transformation of co-ordinates, parabola, ellipse, hyperbola, general equation of the second degree, dis-

cussion of a few of the higher plane curves, and an introduction to geometry of three dimensions.

Required of Junior Mechanical Engineers, elective for all other students who have completed Mathematics 5, first term, 5 hours. Credit 60 hours.

7, 8. *Differential and Integral Calculus.* The topics treated are those usually taken up in accordance with well-established usage; and many practical problems from mechanics are solved by the student in order to maintain his interest, and to fix in his mind the principles which have been explained. Taylor's Calculus is the text-book used.

Required of Junior Mechanical Engineers, elective for all other students who have completed Mathematics 6, second and third terms, 5 hours. Credit 120 hours.

Astronomy

1. *General Astronomy.* Not only astronomical facts and principles will be studied, but also the methods by which these facts have been ascertained. Night observations constitute an important part of the course. The text-book used is Young's General Astronomy.

Required of General and Domestic Science Juniors, elective for all other students who have completed Mathematics 4 and Physics 1, 2, and 3, 5 hours plus 2 hours practice. Credit 72 hours.

2, 3. *General Astronomy.* Continuation of Astronomy 1, about half the time being devoted to night observations.

Required of General and Domestic Science Juniors, elective for all other students who have completed Astronomy 1, second and third terms, 2 hours or equivalent in practice. Credit 48 hours.

Surveying

1. The instruction in this subject will be such as to render the students familiar with the principal instruments and methods used in plane and topographical surveying. Levels will be run, surveys made, notes plotted, and areas computed. Students will have practice in determining the true meridian and latitude, by observation of the north star and of the sun.

Required of all (except Domestic Science) Sophomores, second term, 1 hour plus 8 hours practice. Credit 60 hours.

Equipment

This department has a portable equatorial telescope with 4½ inch objective and magnifying powers ranging from 50 to 400; planetarium, star lantern with slides, star atlases, planisphere, 24-inch slated globe, trigonometer, Kennedy's dissected geometrical blocks; a surveyor's compass, two transits, one of which has a gradienter and solar attachment, engineer's level, plane table, protractors, aneroid barometer, optical square, planimeter, pantograph, chains, tapes, leveling rods, poles, pins, etc.

The department library contains many valuable books of reference, and several periodicals.

MECHANICAL ENGINEERING

PROFESSOR MILLS
ASSISTANT PROFESSOR SAGE
MR. CHUTE

Instruction in this course is given by lectures, recitations, and practice, so combined as to constitute a symmetrical course of study. The endeavor is to provide the student with a broad foundation of general and theoretical knowledge, together with a liberal amount of practice in the line of his chosen profession.

Much time is necessarily devoted to higher mathematics and to technical subjects; yet certain fundamental studies, necessary to a broad and liberal education, such as physics, chemistry, languages, literature, and political economy are provided for.

The student is given a thorough training in the theoretical branches underlying the science of machines, together with a clear understanding of the practical construction of mechanical devices.

Shop practice offers practical illustrations of the precepts taught in the class-room, and is a most essential part of the Mechanical Engineering Course.

No attempt is made to teach trades, but the course in shop practice will furnish such training as will insure marked advancement subsequent to graduation.

The practice is supplemented by lectures on the care and use of the various tools, machines, and materials used in the mechanical engineering profession.

B, A. *Free-hand Drawing.* Outline drawing from blackboard, systematic drill in the execution of curves and scrolls, principles of perspective as applied in the drawing of simple type forms, shop models, etc., relative proportion and the study of the values of light and shade are developed in the execution of drawings of buildings, corners of rooms, etc., lettering and conventional ornament is taken up. The advanced work is given with particular reference to the course pursued by the student.

Required of all Senior Preparatory students and Practical Mechanics men, first and second terms, 2 hours practice.

1, 2, 3, 4. *Mechanical Drawing.* Instruction in the use and care of drafting instruments, exercises in geometrical construction, lettering, plane projections, shading, and coloring; followed by detail and assembled working drawings of machinery with tracing and blue prints therefrom.

Required of Mechanical Engineers, Freshmen, first and third terms, Sophomores, second and third terms, 4 hours practice. Credit 96 hours.

5, 18, 6. *Machine Design.* Mechanical Drawing is merged into Machine Design, of which it forms an important part, and affords constant opportunity for further practice in making drawings of standard types of machinery. The work in this subject consists chiefly in the design of the elements of machines, such as bolts, rivets, riveted joints, journals and bearings, pulleys, gears, etc.

Required of Mechanical Engineers, Juniors, first and third terms, Seniors, first term, 4 hours practice. Credit 72 hours.

7. *Descriptive Geometry.* In this subject the principles of orthographic projection, development of lines and surfaces, etc., are fully discussed in the class room; and a great variety of problems, illustrating both general and special cases, are solved and constructed in the drafting room.

Required of Sophomore Mechanical Engineers, second term, 5 hours. Credit 60 hours.

8. *Elementary Mechanics.* In this subject, the general laws of statics and dynamics are studied with reference to solids, liquids, and gases; and the fundamental principles are applied to the solution of a wide range of problems.

Required of Junior Mechanical Engineers, first term, 4 hours. Credit 48 hours.

9. *Mechanism.* Under this head are studied the principles underlying the action of the elementary combinations of which all machines are composed: the communication of motion by gear wheels, belts, cams, screws, linkwork, etc.

Required of Junior Mechanical Engineers, second term, 4 hours. Credit 48 hours.

10. *Strength of Materials.* This subject embraces a study of the characteristics, methods of manufacture, and useful properties of the various materials of construction; and a mathematical investigation of their strength, elasticity, and other physical properties.

Required of Junior Mechanical Engineers, second term, 5 hours. Credit 60 hours.

11. *Engineering Structures.* This subject embraces a study of the design and construction of foundations and superstructures, the selection of materials, superintendence, specifications, etc.

Required of Junior Mechanical Engineers, third term, 5 hours. Credit 60 hours.

12. *Steam Boilers.* Under this head the principles underlying the construction of the various forms of steam boilers are studied. Attention is given to the various details in their design and operation, such as the size of flues, thickness of plates, styles of riveting, bracing, the amount of grate and heating surfaces, etc.; also the various attachments.

Required of Senior Mechanical Engineers, first term, 5 hours. Credit 60 hours.

13. *Steam Engine.* The student makes a study of the general principles of the steam engine and of the various types in common use, and investigates the many problems relating to their structure and efficiency.

Required of Senior Mechanical Engineers, second term, 4 hours. Credit 48 hours.

14. *Hydraulics* includes the study and application of the principles of the subject to the various problems involved; such as the flow of water through orifices, short and long tubes, conduits, and in open channels; gauging streams, measurements of water power, etc.

Required of Senior Mechanical Engineers, second term, 5 hours. Credit 60 hours.

15. *Engine and Boiler Tests.* In this subject the student makes a study of the principles and the methods involved in determining the efficiency of engines and boilers and applies the same in the engineering laboratory.

Required of Senior Mechanical Engineers, third term, 4 hours practice. Credit 24 hours.

16. *Analytical Mechanics* embraces a study of the laws of equilibrium, motion, work, and energy, as applied to particles and rigid bodies; also a study of the center of gravity and the moment of inertia.

Required of Senior Mechanical Engineers, third term, 5 hours. Credit 60 hours.

17. *In Electrical Engineering* the student is drilled in the fundamental principles of electric power generation and the application of electricity to lighting, street railway, and mining work.

Required of Senior Mechanical Engineers, third term, 5 hours, Credit 60 hours.

D, C. *Carpentry.* Reading drawings, sawing, planing, gauging, chiseling, boring, mortising, dove-tailing, fitting, and joinery.

Required of all male Senior Preparatory students, first and second terms, 6 hours practice.

27. *Wood Turning.* Exercise in turning between centers, face-plate and chuck work, ornamental turning, finishing and polishing.

Required of Freshman Mechanical Engineers snd Practical Mechanics men, first term, 6 hours practice. Credit 36 hours.

19, 20. *Forging.* Care of fire, heating, drawing out, bending, upsetting, swaging, welding, tempering, annealing, tool making and dressing, ornamental iron work.

Required of Freshman Mechanical Engineers and Practical Mechanics men, first and second terms, 4 and 6 hours practice respectively. Credit 60 hours.

21. *Advanced Carpentry.* Glue joints, panel work, tables' bookcases, etc. Timber framing, the construction of miniature buildings will be carried far enough to show the best methods of framing, "laying out," and cutting hip, valley, or jack rafters.

Required of Freshmen Mechanical Engineers and Practical Mechanics men, third term, 6 hours practice. Credit 36 hours.

22. *Pattern Making.* Patterns and core boxes for the molding of simple machine parts.

Required of Sophomore Mechanical Engineers, first term, 10 hours practice. Credit 60 hours.

23. *Foundry Practice.* Mixing and tempering molding and core sands; molding in green and dry sand, skin drying, making and drying cores.

Required of Sophomore Mechanical Engineers, third term, 6 hours practice. Credit 36 hours.

24. *Bench Work in Iron.* Laying out work, chipping, filing, fitting, scraping, polishing, key-seating, drilling and tapping, hand work with machine tools.

Required of Junior Mechanical Engineers, first term, 6 hours practice. Credit 36 hours.

25, 26. *Machine Work.* Elementary machine-tool work with drill-press, planer, and lathe; production of finished machine elemets.

Required of Junior Mechanical Engineers, third term, 6 hours practice, and Seniors, first term, 4 hours practice. Credit 60 hours.

Equipment

The department has two commodious buildings devoted to its work. One has rooms for a forge shop, foundry, and storage; the other contains two recitation rooms and a hall, an engine and boiler room, and rooms for wood work and machine work.

An excellent departmental library containing standard works pertaining to the engineering professions is accessible to students.

MECHANICAL AND ELECTRICAL LABORATORY

The power equipment of the College consisting of the following engines, boilers, etc., affords opportunity for investigation, by the students, on the subject of steam and steam engine practice:—one 40 horse power tubular boiler, one 50 horse power Hoppes feed water heater and purifier, one duplex steam pump, one 30 horse power Weston automatic engine, one 8 horse power Shipman engine, one 13 horse power Priestman oil engine, one air pump and reservoir. The equipment also includes indicators for steam and oil engine testing, one standard steam gauge tester, two planimeters, a gas meter, one tachometer, one Olsen testing machine of 60,000 lbs. capacity for tension, compression, and transverse tests. A current meter, hook gauge, and other instruments are available for work in hydraulics.

One 12 horse power 250 volt dynamo, one 8 horse power motor with switch board instruments, one Weston portable ammeter, one Weston portable volt meter.

The Machine shop has one 16-inch x 6 foot tool room lathe with compound rest and taper attachment, one 14-inch x 8 foot standard engine lathe, one 24-inch x 24-inch x 6 foot planer, one 22-inch power drill press, one sensitive drill, one gas pipe threading and cutting off machine, one improved double wheel emery grinder; also a large number and good assortment of drills, chucks, small tools, and machine attachments.

The Wood-working Shop contains fourteen benches, six 10-inch lathes, one 18-inch x 10 foot lathe, with over-hanging face-plate capable of turning work up to 80 inches in diameter, one combination rip and cross cut circular saw, one Fox trimmer, one large grindstone with Brown and Sharp frame, and a good supply of small tools and appliances.

In the forge shop are twelve forges of the latest down-draft model with improved underground arrangements for the blast and exhaust pipes, one forge being equipped with a hand blower.

Each forge is fitted with a full set of hammers, tongs, swages, fuller, etc. An 18-inch hand power drill press and a punching and shearing machine form a part of this equipment.

The foundry has a brass furnace, the usual small tools, and a number of flasks for moulding.

A Two Years' Course in Practical Mechanics

The course is established for the benefit of those wishing to specialize in Manual Training operations or who have not the time to take the regular college course requiring from four to six years.

It is not the intention to teach trades in this course, but the advantages of the shops are offered free to young men who can not enter regularly in the college classes. Since instruction, rather than money-making is the object, it can readily be seen that the work under skilled instructors has many advantages over the ordinary trade apprenticeship.

While there are no educational requirements for admission to this course, the student must be at least sixteen years of age, and show his fitness for the work. The amount of shop practice work in the first year is greatly in excess of that required of Freshmen in the Mechanical Engineering course, and is of the same grade. During the second year the student will be allowed to specialize in either wood or iron work and the drawing pertaining thereto.

Two Years' Course in Practical Mechanics

FIRST YEAR

FIRST TERM	SECOND TERM	THIRD TERM
Geom. Drawing, 3 P. Free Hand Drawing, 2 P. English, 4 or 5. Mathematics, 4 or 5. Elective, 4 or 5. Woodturning, 10 P.	Free Hand Drawing, 2 P. Geometrical Drawing, 3 P. Forging, 10 P. English, 4 or 5. Mathematics, 4 or 5. Elective, 4 or 5.	Free Hand Drawing, 2 P. Mechanical Drawing, 3 P. Carpentry, 10 P. English, 4 or 5. Mathematics, 4 or 5. Elective, 4 or 5.

SECOND YEAR

FIRST TERM	SECOND TERM	THIRD TERM
One of: Carpentry, 10 P. Bench Work in Iron, 10 P. Pattern Making, 10 P. Machine Work, 10 P. Foundry Practice, 10 P. Drawing, 4 P. English, 4 or 5. Elective, 4 or 5. Mathematics, 4 or 5.	One of: Carpentry, 10 P. Forging, 10 P. Pattern Making, 10 P. Foundry Practice, 10 P. Drawing, 4 P. English, 4 or 5. Testing Materials, 4 P. Mathematics, 4 or 5. Elective, 3.	One of: Carpentry, 10 P. Forging, 10 P. Pattern Making, 10 P. Foundry Practice, 10 P. Machine Work, 10 P. Drawing, 4 P. English, 4 or 5. Mathematics, 4 or 5. Elective, 5.

POLITICAL ECONOMY

PRESIDENT FOSTER

1. In this subject, the student is made acquainted with the laws of production, the principles of money, foreign trade, tariff and taxation, the influences which affect exchange, the various theories of distribution and consumption, and the history of economic development.

Required of all Juniors second term, 4 hours. Credit 48 hours.

SPANISH AND LATIN

PROFESSOR HOBLIT

Spanish

Spanish, the mother tongue of a large proportion of the people of New Mexico, is given a prominent place in the work of this institution. Students who may desire to learn to speak the language will here find distinct advantages. They will hear it spoken constantly by scores of young people in and about the college, while the neighboring towns afford additional opportunities for practice. In the courts, churches, and stores Spanish is heard almost as much as English.

Three courses are offered by the college, each extending over thirty-six weeks. Students are expected to take the courses in the order in which they are outlined below, but after Elementary Spanish, other work not conflicting, those who may desire to specialize in Commercial Spanish may choose that course to complete the required work.

Courses

1, 2, 3. *Elementary Spanish.* Marion and Des Garennes' Introducciòn à la Lengua Castella, with additional work upon the irregular verbs and syntax. Reading of extracts from Padre Isla's Lesage's Historia de Gil Blas and Matzke's First Spanish Readings. Translations, themes, and class conversation throughout the year.

Required of all students who do not elect Latin—Freshmen of the General, Domestic Science, and Mechanical Engineering courses, and Sophomores of the course in Agriculture. Three terms, 5 hours; credit 180 hours.

4, 5, 6. *Novels*, *Poetry*, *and Drama.* Careful reading of a few representative works, with translation of selected passages. The aim is to equip the student for rapid and appreciative reading of the best literary productions. A part of the spring term is devoted to a brief survey of Spanish Literature. Class conversation and compositions upon subjects suggested by the reading are features of the work throughout the year.

Required of all Sophores who do not elect Latin, except students of

Agriculture and Mechanical Engineering. Elective to others who have completed Spanish 1, 2, 3 or an equivalent. Three terms, 5 hours; credit 180 hours.

7, 8, 9. *Commercial Spanish.* The aim of this course is purely practical, with particular reference to the commercial use of the language. Reading of Jevons' Nociones de Economìa Polìtica, newspaper reading, and study of the terms and forms used in commercial correspondence and in trade. The writing of Spanish and practice in conversation are made prominent features of the whole course.

Required of all students of Spanish Stenography, and elective to others who have completed Spanish 1, 2, 3 or an equivalent. Three terms, 5 hours; credit 180 hours.

Equipment

The department is supplied with much general reading matter, including Rivadeneyra's Biblioteca de Autores Españoles in seventy volumes, and a considerable number of works of recent novelists, short story writers, poets, and critics. The equipment in reference books, general and technical dictionaries, manuals of correspondence and business forms, is quite compete.

SPANISH BY CORRESPONDENCE

For the convenience of those desiring to study Spanish, but who are not able to pursue the work at the college, a number of courses are offered by correspondence. Each course is intended to cover the ground of two terms college work and will be given that amount of credit whenever the student shall have satisfactorily completed the course.

Plan of Work

Instruction sheets giving suggestions and assistance, and assigning tasks to be performed, are furnished by the instructor. At regular intervals the student mails to the instructor a recitation paper containing the tasks assigned in the instruction sheet, answers to the questions, and any additional questions concerning difficulties which he may have encountered in his study. This recitation paper is read and corrected by the instructor and returned to the student with such suggestions and criticisms as may be necessary.

Courses

Three courses are offered by this college as follows:

1. *Elementary Spanish.* This is designed to introduce the student to the principles of the language, grounding him in the grammar, and leading to a fair reading knowledge and the ability to translate easy English into Spanish. A text-book is used, supplemented by additional notes and explanations by the instructor.

2. *Novels, Poetry, and Drama.* A careful study of several representative works, with grammatical notes and questions and composition exercises based upon the matter read. The aim is to equip the student for appreciative reading of the best Spanish literary productions. In the poetry, some attention is given to the laws of versification, and prose paraphrases are required from time to time.

3. *Commercial Spanish.* A practical course designed to fit students for positions where a knowledge of commercial usage of the language is essential. Reading of newspaper extracts and matter relating to commerce, advertisements, circulars, and letters. Accurate translations, and exercises in latter writing and other forms of composition.

Enrollment and Fees

Correspondence courses many be begun at any time of the year, but they must be completed within one year from the date of enrollment. Extension of time to the amount of three months will be granted only on account of sickness or other serious disability.

Each course consists of forty written lessons with the correponding corrections and comments of the instructor.

The tuition for each course is $15.00, the student paying for his books and the postage stamps employed in the correspondence.

No fees will be refunded on account of a student's inability to continue a course for which he has registered.

Further information will be given upon application to The Department of Spanish of the college.

Latin

The study of Latin is limited to two years, the work accomplished being that usually done in courses of like duration. The Roman pronunciation is used. A good knowlege of English grammar is a prerequisite to a profitable study of Latin.

Students may at their option substitute Latin for the required work in Spanish, except in the case of students of Spanish Stenography. Students of Agriculture may elect a second years work.

Courses

1, 2, 3. *Elementary Latin.* Collar and Daniell's First Year Latin. Attention is constantly directed to the etymological relations between Latin and English.

Required of all students who do not elect Spanish. Three terms, 5 hours; credit 180 hours.

4, 5, 6. *Caesar's Commentaries.* Greenough, D'Ooge and Daniell's Second Year Latin. Oral and written compositions based upon the text.

Required of all Sophomores who do not elect Spanish, except students of Agriculture and Mechanical Engineering. Three terms, 5 hours; credit 180 hours.

DEPARTMENT OF MILITARY SCIENCE AND TACTICS

PROFESSOR ALFRED S. FROST

Major U. S. Army, Ret.

(Former Coloned, 1st South Dakota Infantry, U. S. V.)

The primary object of this department is to furnish the country each year with a class of young men who are fitted to become efficient officers of volunteers in time of war.

For this reason, the department is fostered by the United States Government and practically maintained by it without expense to the college.

The professor is a regular army officer detailed by the President of the United States for this duty, and the equipment, amounting in value to about five thousand dollars, is loaned to the college by the War Department. This includes cannon, rifles, belts and cartridges boxes, and a yearly allowance of ammunition for target practice.

The department offers the following comprehensive course:

(a) Practical:—

Infantry Drill Regulations, through the school of the battalion in close and extended order.

Advance and rear guards and outposts.

Marches.

The ceremonies of battallion review, inspection, parade, guard mounting, and escort of the colors.

Infantry target practice.

Instruction in first aid to the injured.

(b) Theoretical:—

The Infantry Drill Regulations covered by practical instructions.

The Manual of Guard Duty.

Small Arms Firing Regulations.

Ten lectures each year upon Military subjects, notes to be taken by the students and to be made the basis of subsequent recitations.

Also instruction in the bookkeeping of a Company of Infantry and the prepreparation of its reports, returns, etc.

Aside from its possible benefit to the country in the event of war, this course is of great and immediate benefit to the student.

The drills and exercises are mild forms of physical training, giving an erect and graceful carriage and correcting the bad habits of body to which students are prone. But their chief value to the individual lies in their mental and moral discipline; for, by their practice, he acquires the habit of self control, respect for authority, and the fitness to exercise it.

Required of all male students of the institution, except Juniors, Seniors, and Graduate students, throughout the year, 4 hours. Credit 108 hours per year.

Uniform

The uniform is of gray cloth, made after the West Point pattern. On account of the need for greater protection to the eyes than is afforded by the cadet cap, the U. S. Army campaign hat has been substituted. White Berlin gloves are also required to be worn at all drills and ceremonies.

Cost of Uniform

Blouse and trousers, from $13.60 up. Campaign Hat, from $2 up. Berlin gloves, twenty cents per pair. The cadet will require four pairs of gloves for the school year. These are washed with the weekly laundry.

OFFICERS OF THE CADET BATTALION

Major William Pelphrey. Captain and Adjutant Earl A. Graham. Sergeant Major Bolling Hall.

COMPANY A.	COMPANY B.
Captain John George Miller.	Captain Rex H. Hart.
First Lieutenant Clay Newberry.	First Lieutenant John W. Bouts.
2d Lieut., Herbert N. Alleman.	2d Lieut., Rex Gilliam.
First Sergeant Arthur Fraker.	First Sergeant Guy Givens.
Sergeant E. Redding.	Sergeant Jake Sweet.
Sergeant Walter Ames.	Sergeant Claude Randall.
Sergeant Donald Young.	Sergeant Harry Parks.
Sergeant George G. Aelde.	Sergeant Efren Ornelas.
Sergeant A. J. Abbott.	Sergeant F. Newton.

COMPANY A.

Corporal Benjamin Nabours.
Corporal Edward Wade.
Corporal F. Quintero.
Corporal Ralph Kinsell.
Musicians Exter and Ramirez.

COMPANY B.

Sergeant C. Natress.
Sergeant D. Bloodgood.
Corporal Irving Sampson.
Corporal A. Graham.
Corporal H. Stewart.
Corporal J. Mundell.
Corporal D. Coleman.
Musicians Johnson and Bishop.

COMMERCIAL TRAINING

The college offers an elective course of five hours per week for one year, which is intended to give a thorough drill in all practical commercial calculations, in double-entry bookkeeping, business forms, and business customs.

1. *Commercial Arithmetic.* To enter this class applicants must pass an examination in the fundamental operations of arithmetic, including common and decimal fractions. Certificates wil not be accepted in lieu of the examination.

Elective to all students who pass the required entrance examination, first term, 5 hours. Credit 60 hours.

2, 3. *Bookkeeping and Business Forms.* This course will give students such training in the essentials of double entry bookkeeping as will fit them to take an office position.

Elective to all students who have completed course 1 or its equivalent, second and third terms, 5 hours. Credit 120 hours.

MUSIC

The policy of this institution is to maintain a good department of music which furnishes first class opportunity for instruction on the piano forte to those desiring it. This department is of necessity self supporting, and students will be charged for lessons at the rate of $12 per term of twelve weeks, one lesson per week, for private lessons.

The institution is supplied with four pianos and no charge is made for the use of these instruments for practice of students who are receiving instruction in the deparment. The chorus class, to which students of the institution will be admitted free of charge, has proved successful the past year and will be continued.

The authorities recognize the importance of musical training in the college and encourage the work of this department to the full extent of their power. In pursuance with this policy they have decided to credit regular work in music as other subjects are credited, and hereafter students taking one lesson per week, with its accompanying practice, will receive credit of 30 hours per term. Such credits are accepted as equivalent of the same number of hours in any other subject leading to a degree.

Parties interested in this subject may obtain more detailed information by applying to the teacher of music.

STENOGRAPHY AND TYPEWRITING

MR. LESTER, PRINCIPAL
PROFESSOR MACARTHUR
PROFESSOR HOBLIT
MR. MILLER

To meet the demand for instruction in stenography and typewriting the above department is maintained in the college. To avoid interference with the regular college work, the work of this department is kept distinct, with certain requirements, and a definite course of study.

Requirements for Admission. For entrance to the course in English Stenography, students must be at least sixteen years of age. The average age of the enrollment in this department, however, is usually much higher than this. For last year, the average was 22½ years. Graduates of any commissioned high school in the territory will be admitted without examination. All other applicants must show that they possess the required ability in English to enter the Freshman English class of the regular college course. See page 47

No guarantee is given to any student pursuing these courses that he will secure a position upon completion thereof. There is, however, little doubt that any student satisfactorily completing a required course will be able to take a position, and no competent graduate of the department has yet failed to do so.

Equipment. The department is equipped with sixteen typewriters, Remington and Smith Premier machines and an Oliver. There are also the necessary appliances for the required work under office practice.

It is important that students enter this department promptly at the beginning of the courses. It is seldom that one who enters late is able to complete the required work satisfactorily. No provision can be made for commencing the work of a course at any other time than as provided. The course of study in English Stenography is as follows:

A Course in English Stenography

FIRST TERM	SECOND TERM	THIRD TERM
Stenography 1, 10 hours. Typewritting 1, 5 hours. English 16, 5 hours.	Stenography 2, 10 hours. Typewriting 2, 5 hours English 17, 5 hours.	Stenography 3, 10 hours. Typewriting 3, 5 hours. Office Practice, 5 hours.

Stenography. Stenography 1, in the first term of this course, is elementary in character, being a thorough study of the principles of shorthand. Stenograghy 2, in the second term, covers word signs and outline drill; and in the third term, Stenography 3 consists of advanced grade work, introducing a good deal of business and other dictation.

Text-books: Graham's Standard Phonography, revised edition; Graham's First and Second Readers and Amanuensis Practice:

Typewriting. This Work covers fingering, touch, copying, letter-writing, legal and commercial forms, typewriting from dictation, mechanism and care of the machine, speed exercises, and transcription from shorthand notes. The four finger touch method is used, with blank key-board. Work absolutely free from errors is required. Opportunity is afforded students for work on both single and double key-board machines.

Text-book: Barnes' Complete Typewriting Instructor; Van Sant's Typewriting Charts.

Office Practice. This work, occurring in the third term, covers letter writing, indexing and filing, proof-reading, duplicating and manifolding. A small charge is made for material used.

English-Spanish Stenography.

The experience of past years has shown conclusively that a strong and growing demand exists for competent English-Spanish stenographers. The conditions existing in this locality and institution are so favorable for work in English-Spanish stenography that they may be said to be almost unique. The calls upon this college for such stenographers during the past few years have far exceeded the supply;

although these calls come principally from Mexico, there is an increasing demand in the United States and the newly acquired Spanish-speaking possessions and it is believed that the business opportunities open to competent English-Spanish stenographers are most desirable.

For admission to this course students must show that they are prepared to complete the course within one year. To do this some previous knowledge of both English shorthand and the Spanish language is desirable and usually necessary.

The course in Spanish Stenography is as follows:

A Course in Spanish Stenography

FIRST TERM	SECOND TERM	THIRD TERM
English 1, 5 hours	English 2, 5 hours	English 3, 5 hours
Special work, 4 hours	Spanish Stenog. 7, 5 hours	Span. Stenog. 8, 5 hours
Adv. Stenography 4, 5 hours	Adv. Stenography 5, 5 hours	Adv. Stenog. 6, 5 hours
Spanish 7, 5 hours	Spanish 8, 5 hours	Spanish 9, 5 hours
Typewriting 4, 5 hours	Typewriting 5, 5 hours	Typewriting 6, 5 hours

Stenography. Stenography 4, 5, and 6 in this course is advanced work in English Stenography, and consists of rapid dictation and business forms. Stenography 7 and 8 is the work in Spanish Stenography, during which the principles of the text book used are first gone over, followed by work in Spanish dictation.

Text-book: Lester and Baker's English-Spanish Phonography.

Special Work. Under this head provision is made for special work in commercial English, to thoroughly train Spanish speaking students; or for special work in Spanish, in the Freshman or Sophomore classes, for those whose knowledge of that language is not sufficient.

Typewriting. Typewriting 4, 5, and 6 is principally English and Spanish transcription work, with such advanced work as the time allotted will permit.

THE PREPARATORY SCHOOL

PROFESSOR RICHARDS, PRINCIPAL
MISS COMBS
MISS BLAKESLEY
MISS SHIMER

This department has been planned primarily for young men and women who desire to prepare themselves for some of the regular courses of the college proper. Owing to the vast extent of the Territory and its scattered population, it has been almost impossible to secure good school privileges for every settlement, or even for some of the larger towns. This department, through its special and regular classes, enables pupils to supplement the deficiencies of their home schools, or to secure more complete and thorough instruction in the branches commonly taught in the grammar and high schools.

Besides its regular classes, there is a special class designed to meet the needs of those persons of somewhat mature age who, through lack of early opportunities, are not prepared to enter the regular collegiate or preparatory classes, but whose maturity of mind enables them to make more rapid progress than can be made in the regular preparatory classes; and of those Spanish speaking students (still a large element in our population) whose educational qualifications would admit them to a regular class if their command of English were greater. The course of study for this class cannot be definitely outlined. Each pupil however, will be prepared as quickly as possible to enter a regular class.

Requirements for Admission

For admission to the special class candidates must be at least sixteen years of age or must possess all the requirements for admission to a regular class; except a sufficient knowledge of the English language.

For admission to the lowest regular (C) class of the preparatory department candidates must give satisfactory evidence of having completed the work of the Fifth Grade as outlined in the Course of Study for the Public Schools of New Mexico and authorized by the Territorial Board of Education. This work is as follows:

1. Arithmetic.—An equivalent of the work covered by White's Complete Arithmetic to Common Fractions (p. 47.)
2. Language.—An equivalant of the first half of Reed and Kellogg's Graded Lessons in English.
3. Geography.—Complete the study of the United States in Barnes' Complete Geography, or its equivalent.
4. Reading.—An equivalent of the work covered by McGuffey's Fourth Reader.
5. Spelling and Writing.—An elementary knowledge of these subjects.

For entrance to the higher classes candidates must give satisfactory evidence of having completed the work of grades below the class they seek to enter.

Strict adherence to these requirements will be enforced.

Instruction in free-hand drawing will be provided for all pupils. Some informal work will be done, also, in vocal music.

The aim of the department is to develop courteous manners and studious habits in the pupils. While strict discipline will be maintained, the students as far as possible, are placed on their honor and self-government is encouraged. This, we believe, will tend to develop those qualities necessary to good citizenship.

COURSE OF STUDY OF THE PREPARATORY SCHOOL

Junior Preparatory Class

FIRST HALF YEAR	SECOND HALF YEAR.
Algebra	Algebra
Grammar and Composition	Composition and Introductory Literature
Arithmetic	
Civics	Physiology
Freehand Drawing	Freehand Drawing
Physics	Physical Geography

Elementary Division

A CLASS

Arithmetic
Grammar and Composition
United States History
Reading
Spelling
Writing
Freehand Drawing

C CLASS

Arithmetic
Grammar
Geography
Reading
Spelling
Writing
Freehand Drawing

B CLASS

Arithmetic
Grammar and Composition
Geography
Reading
Spelling
Writing
Freehand Drawing

SPECIAL CLASS

The course of study for this class can not be definitely outlined, but the work will be such as to prepare students for a regular class as quickly as possible.

For the Junior Class the following books will form the basis for composition work: Goldsmith's Vicar of Wakefield; Tennyson's Princess, Lancelot and Elaine, The Passing of Arthur, and Gareth and Lynette; Lowell's The Vision of Sir Launfal; Scott's Ivanhoe, and The Lady of the Lake; Coleridge's The Ancient Mariner; George Eliot's Silas Marner; Irving's Life of Goldsmith.

The lower classes will be furnished with a list of library books from which each member will be expected to select and read at least two books during each term of the year.

MATERIAL EQUIPMENT

The Main Building or College Hall

The main building is a brick structure of two stories with stone basement surrounded by a cement area. It is trimmed with a gray stone and has a heavy rough stone foundation. It is well built and cost $25,000. It contains thirteen rooms, all of which are furnished and in constant use. The building is well supplied with gas, water, and is lighted by electricity. On the first floor are the library and the president's and the registrar's offices, as well as a number of recitation rooms. On the second floor, besides several class rooms, is McFie hall, which is used for class exercises, lectures, and similar purposes, and will seat a large audience.

The Library

MISS BAKER

The college library comprises 9,000 books, 6,000 pamphlets and 1,500 public documents. In addition to these it subscribes to 96 magazines and several dailies, and receives numerous magazines and papers as gifts. This collection is grouped into general, department, and text-book libraries.

General Library

The general library is located in a well lighted and commodious room in the main building. It is the aim of the institution to make this room an attractive place for study and quiet reading. It is open from 8:15 a. m. to 5:00 p. m. on all college working days, and until noon on other days excepting Sundays and legal holidays.

This main library has in the neighborhood of 3,500 volumes for general use and about 1,200 volumes for reference work. The reference section consists of the best dictionaries, encyclopedias, etc., besides the files of magazines with the standard indexes. In addition to the customary reference books, files of the bulletins of the Agricultural Experimen Stations throughout the United States are also accessible.

The books are classified by the Dewey system and are arranged on open shelves. They are further subdivided into adult and juvenile. This personal access to the books is of especial benefit to our Spanish speaking students, as it gives them an opportunity to look books over before taking them home. The catalogue is the usual dictionary catalogue of authors, subjects, and titles arranged in one alphabet.

Subject to certain lenient restrictions, books may be drawn by any member of the college. Students are required to make a guarantee deposit with the registrar of $2.50 preliminary to drawing either library or free text books. This amount is refunded at the end of the year on presenting to the registrar an order properly endorsed by the librarian. The rules governing the library may be found on pages 97-98.

A limited number of students desiring to help themselves may work out their fees in the library at the rate of ten cents per hour. Such students will be required to give a few additional hours in order to learn the duties assigned them.

Department Libraries

Each department has it own individual library which is open during the working hours of the department. Books may be drawn from these libraries by consulting the heads of the departments concerned. The departments subscribe to 38 magazines.

Free Text-Book Library

Text-books are furnished to all students after they have made a deposit of $2.50 with the registrar. These books are drawn out upon written orders from the several instructors. Students are charged for unreasonable damage to all books while in their possession.

The following periodicals are either in the library or in the offices of the special departments:

*Advocate of Peace.
*Agricultural Advertising.
American Blacksmith.
American Chemical Journal.
*American Cultivator.
American Electrician.
*American Fertilizer.
*American Grange Bulletin.
American Florist.
American Machinist.

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*Gifts.

American Naturalist.
*American Poultry Journal.
*American Sheep Breeder.
*American Swineherd.
Analyst.
Army and Navy Register.
Atlantic Monthly.
*Beet Sugar Gazette.
Birds and Nature.
Blanco y Negro.
Book-keeper.
Bookman.
Botanical Gazette.
*Breeder's Gazette.
*Brick.
Bulletin Torrey Botanical Club.
Business World.
*California Cultivator.
Carpentry and Building.
Cassier's Magazine.
Catholic World.
Century Magazine.
Chemical News.
*Colman's Rural World.
Cosmopolitan.
Country Life.
Critic.
Current Literature.
*Dairy and Produce Review,
Delineator.
Designer.
Educational Review.
Electrical World and Engineer.
*Elgin Dairy Report.
Engineering and Mining Journal.
Engineering Magazine.
Engineering News.
Etude.
*Farm and Fireside.
*Farm and Ranch.
*Farm Home.
*Farm Journal.
*Farm Poultry.
*Farm, Stock, and Home.
*Farmer's Call.
*Farmer's Guide.
*Farmer's Review.
*Farmers Voice.
*Farmer's Wife.
Field and Farm.
Forestry and Irrigation.
Gardening
*Gleanings in Bee Culture.
Harper's Bazar.
Harper's Monthly.
Harper's Weekly.
Hoard's Dairyman.
Homestead.
House Beautiful.
*Indiana Farmer.
International Quarterly.
International Studio.
Irrigation Age.
*Journal of Agriculture.
Journal of the Am. Chemical Society.
Journal of Education.
Journal of London Chemical Society.
Journal of Pedagogy.
*Kansas Farmer.
*Kimball's Dairy Farmer.
Knowledge.
Ladies' Home Journal.
Le Bon Ton.
Library Journal.
Life.
Literary Digest.
Literary News.
Little Chronicle.
*Live Stock Journal.
*Locomotive.
*Louisiana Planter.
McClure's Magazine.
Manual Training Magazine.
Masters in Art.
Masters in Music.
*Medical Book News,
*Metropolitan Rural Home.
*Missouri Agricultural College Farmer.
*Modern Miller.
Modern Priscilla.
Monthly Cumulative Book Index.
*National Farmer.
*Nebraska Farmer.
New York Times Saturday Review.
North American Review.
*Orange Judd Farmer.
*Oregon Agriculturist.
Our Times.
Outlook.
Out West.
*Pacific Fruit World.
Pacific Rural Press.
Patternmaker.
Phonographic Magazine.
Plant World.

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*Gifts.

Popular Astronomy.
Popular Science Monthly.
Power.
*Practical Farmer.
*Prairie Farm Home Magazine.
*Prairie Farmer.
Public Opinion.
Publishers' Weekly.
Reader's Guide.
*Reliable Poultry Journal.
Review of Reviews.
Rhodora.
Rural New Yorker.
Saturday Evening Post.
Science.
Scientific American and Supplement.
Scribner's Magazine.
*Southern Farm Magazine.
*Southern Planter.
St. Nicholas.
Stenographer.
Students' Journal.
Success.
*Successful Farming.
*Successful Poultry Journal.
*Sugar Beet.
Table Talk.
*Texas Farmer.
Torreya.
Typewriter and Phonographic World.
U. S. Cavalry Journal.
*Up to Date Farming.
*West Virginia Farm Review.
World's Work.
Youth's Companion.

The following newspapers are regularly received and put on file in the library:

*Albuquerque Citizen.
*Baltimore Sun.
*Carlsbad Argus.
*Chicago Drover's Journal.
Chicago Tribune.
*Cloudcroft Silver Lining.
*Colfax County Stockman.
*Daily Drover's Telegram.
*Deming Graphic.
*El Fenix.
*El Labrador.
*El Republicano.
*El Tiempo.
*La Luz.
*La Voz Publica.
*Las Cruces Citizen.
*Las Cruces Progress.
*Las Vegas Optic.
New York Times.
*New Yord Tribune Farmer.
*Otero County Advertiser.
*Quay County Democrat.
*Raton Gazette.
*Raton Range.
*Rio Grande Republican.
*Roswell Register.
*Santa Fe New Mexican.
*Santa Rosa Star.
St. Louis Republic.

Science Hall

This is a large two story brick building, situated north of the main building. It contains eleven large rooms, and five smaller ones, besides large hallways. The lower floor is occupied by the departments of Chemistry and Domestic Science, while the upper floor furnishes quarters for the departments of Physics and Biology and Geology. All the class work of these departments is done in this building, and the Experiment Station work in chemistry, botany, and soil physics is carried on here.

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*Gifts.

Engineering Buildings

These buildings, two in number, are located south of the Main building. They comprise, besides two large recitation rooms and hall, commodious rooms for wood work, machine work, foundry, and blacksmithing, an electric light plant, and a 40-horse power steam plant. These buildings are well equipped for engineering work.

Women's Hall

This is a brick building, situated on the College Farm. It contains a large dining hall, a large parlor, a smaller reception room, a music room, the matron's room, a kitchen, etc., besides bath rooms and twenty-five well lighted and ventilated sleeping rooms, all nicely furnished. About sixty people can be accomodated in the building.

Other Buildings

Back of the main building are the feed rooms and horse sheds. These are for the horses of the students and professors.

An adobe farm building erected at a cost of about $2,000 is located near the center of the farm. The greenhouse and the sheds for the storing of farm implements and machinery are located near the farm building. An adobe corral has recently been added to the farm equipment.

The last legislature made appropriations which are to be used as follows: (1) the girls' dormitory will be completed according to the original plan, thus giving accomodations for double the number of students, (2) the construction of a special library building designed to accommodate our ever growing and valuable library, (3) the building of an armory for the work of the military department, and (4) the begining of a new main building. This building is to be designed to furnish ample room for a large part of the class work of the institution for some time to come. These buildings are sadly needed now and the institution will be much better able to do its duty to the young people of the territory when they are complete.

GENERAL INFORMATION

The College of Agriculture and Mechanic Arts offers a great deal to the young people of New Mexico. Its courses of study and equipment are now equal to those of similar colleges in most of the older states and students can get a very thorough training here in any of the leading lines of practical education. New schools generally make greater efforts than the older ones and the energy put forth and the instruction given are often superior. There are a great number of students sent from various parts of the territory each year to eastern colleges. We ask parents who do this to investigate this college, and we believe if they will do so, it will get a share of their patronage, and that our people will manifest, in an increasing degree, their appreciation of the bounty of the United States and of the territory here depensed. We know that this college is better fitted to do good work than some of the eastern schools patronized by our people.

Mesilla Park, N. M., is the postoffice and also the general freight and express office of the college.

There is now a good elementary public school at Mesilla Park, the course of study in which connects with that of the preparatory department of the college; so that parents who desire to live in the neighborhood of the college for the sake of giving their older children its educational advantage will also have at hand a good school for their younger children.

Strangers will now find satisfactory temporary accomodations at Mesilla Park near the depot. They should then report to the president who will assist them in finding a boarding place.

Students should be on hand the first day of the term. The necessity of this is too seldom realized. New students and those desiring re-examination should report on the day named for this work.

Fellowship

The board of regents determined in 1900 to establish one or more fellowships, of the annual value of $300, open to graduates of the college, and in default of competent graduates who have specialized in the particular line of work required of the fellow, to graduates of other colleges. These fellowships will be tenable for one or two years, but not for a longer period, and will be awarded to promising graduates who desire to pursue their studies in one or more lines beyond the undergraduate curriculum, and who are willing and able to devote half of their time to assisting in the work of one of the departments of the college. The appointment will be made upon the joint recommendation of the head of the department in which the fellow is to serve and of the president of the college. A fellow will not be permitted to carry more than two full courses of study, without the express permission of the head of his department and the president of the college.

Fees and Deposits

Entrance Fee. Each year all students, who are citizens of New Mexico are charged a fee of five dollars ($5.00); students from other states or territories of the United States are charged a fee of five dollars ($5.00) per term. Students who are not citizens of the United States are chargad a tuition fee of seventeen dollars ($17.00) per term, or fifty dollars ($50.00) per year.

Book Deposit. All students are required, each year, to deposit two and one-half dollars ($2.50) with the registrar, as a guarantee that the proper treatment will be given to college text books, and other property lent to them. At the close of the year or whenever the student withdraws from the college, his deposit, less charges for damage to or loss of college property, is returned to him. Students who are notoriously careless with their text books may be required to increase their deposits.

Chemistry Deposits. Students in all chemistry, mineralogy, and assaying courses (except Chemistry A) must have on deposit with the registrar, at the beginning of each term, the sum of five dollars ($5.00) to cover breakage of apparatus used in this work. Students in furnace assaying must, in like manner have on deposit ten dollars ($10.00) to cover cost of crucibles, scorifiers, and other apparatus used up or broken. At the end of the year or upon withdrawal, these deposits less breakage, etc., will be returned.

Chemistry Fee. At the beginning of each term each student taking furnace assaying will be charged a fee of five dollars ($5.00), to cover cost of gasoline and fluxes used.

Mechanical Engineering Deposits. Students taking any practice work in the Engineering Department, will be required to deposit with the registrar, at the beginning of each year, five dollars ($5.00) to cover breakage or damage, and must make additional deposits at any time, to meet similar expenses in excess of this amount. These deposits, less charges for breakage or damage, will be returned at the end of the year or upon withdrawal.

Military Fee. Each student who takes military tactics will be required to purchase a complete uniform when he commences this work. The regular fatigue uniform will cost $16.50 complete. This includes suit, hat, and gloves as adopted for use of the cadets.

Music. Instruction in music is charged for by the lesson.

Horse-stall Rent. Twenty-five cents (25c) per term is charged each student or teacher using a horse-stall. This fee is used to keep the sheds clean.

Text Books

Text books are furnished by the college. They will either be sold to the student at cost, or lent. Students who are able should purchase their books. Many of them will be needed after leaving school, and they can be made to form the nucleus of a private library, which every student should be encouraged to collect.

Stationery

As the college is nearly three miles distant from any store dealing in stationery, it has been found necessary, for the accommodation of students, to carry at the college a small line of articles, such as paper, pencils, pens, etc., which are sold to students, for cash only, at a small profit.

Boarding

Although the college, as such, can do nothing towards furnishing board and rooms for men, the accommodations for all classes of students are becoming quite varied and ample. The college has attracted to its immediate vicinity private families, many of whom accommodate some students with board. The price for board, room, lights, etc., in families, varies from $16 to $25 per month; table board in families about $15 per month. Not far from the college campus are cottages for rent. These are usually occupied by families who have moved in and taken up temporary residence for the purpose of educating their children. This is a very satisfactory solution of the boarding problem.

A boarding club for young men—a private enterprise, conducted by Mr. Charles L. Post, address, Mesilla Park—has been established. It is under the supervision of the faculty. The building is sufficient to room and board about forty students. Table board is also furnished to some who do not room in the building. Rooms are furnished with study-tables, but students are expected to furnish their own bedsteads or cots, bedding, towels, etc. Rooms, however, will be fully furnished for those who desire it. The food is abundant and healthful. The cost for board during the past year has been $15.00 per month. During the coming year, Mr. Post, who is a graduate of this college, will spend two hours each evening instructing those who wish to make up back work. He also expects to do some practical field work in surveying on Saturdays and will furnish work and instruction to a few men desiring it.

The Women's Hall

The Women's Hall, situated on the college farm, will accommodate about sixty students. The price of board per calendar month, with room, light, heat, and the washing of a dozen pieces including house linen, is $17.00 when two young women occupy a room, and $16.00 when there are three in a room; payable in advance on the first of each month. The rooms are comfortably furnished, but each student must provide comforts, blankets, sheets, pillow-slips, towels, napkins, napkin ring, and two laundry bags. The student's name must be plainly marked on all the pieces.

The students are under the general supervision of the faculty, and in charge of the matron. For further particulars apply to the matron.

Estimate of Necessary Expenses

Various college incidentals................	$ 10 00	..	$ 10 00
Nine month's board and lodging at $15 to $20	135 00	to	180 00
Laundry, per month at $1.00...............	9 00	..	9 00
	$154 00	to	$199 00
Male students who are required to take military tactic, for uniform..............			$16 50

Paid Labor

There is a considerable amount of labor on the farm, in the shops, and in the laboratories, that can be performed by students, and the policy is to give it to students rather than to others. Some students have been able to earn enough during the past year to pay their expenses; but those doing so have had constant employment in some subordinate position. The college can not undertake to furnish work for all students who wish it, or need it, in anything like sufficient amount to pay expenses; and even if it could, the student's time is needed chiefly for study, recitation, and practice. Still, many worthy and industrious students pay a considerable part of their expenses by labor. Preference is given to those who are most trustworthy and meritorious, and who are regular and punctual in attendance, and correct in deportment. This labor is paid for at the rate of from 7½ to 20 cents per hour; but the faculty reserves the right to limit the amount of work any student may do.

Religion

All students will be trained in the principles of morality, but no sectarian teaching will be tolerated in the college. Entire freedom of choice is given the student in selecting the church he will attend. Services are held at the following churches every Sunday: Roman Catholic, Presbyterian, Methodist, Baptist, and Episcopalian. At the Presbyterian church are held meetings of the Young People's Society of Christian Endeavor. With the Methodist church is connected the Epworth League.

Discipline and Government

It should be impressed upon the youth of New Mexico that by the creation of the College of Agriculture and Mechanic Arts there has been provided for them the fullest and best opportunities to secure a practical education. Students, who enjoy the advantages here offered, should realize that to forfeit these privileges on account of their misuse or abuse is a matter of the most serious concern to them. No elaborate code for the conduct of students is prescribed. The college rules are mainly for the purpose of facilitating the college business. As regards behavior, students are expected to conduct themselves as ladies and gentlemen. If, after a fair trial, the influence of any student is found to be detrimental to scholarship, morals, or good order, dismissal will follow.

For some time past the students have been encouraged to take an active part in the administration of the college. The student body is organized, and there is a Student Conference Committee consisting of representatives from the student congress and from the faculty. This committee discusses informally all matters of student concern, whether proposed for discussion by the faculty or by the students, and recommends to the faculty and to the student congress such lines of action as seem to it to be wise.

College Rules

As already stated, it is the policy of the faculty of this institution to deal with students in the most liberal manner possible. It is assumed that college students in an institution of this character are of sufficient age and advancement to know how to conduct themselves properly as ladies and gentlemen. In view of this policy this institution has no written rules relating to the conduct of students. Any violation of the usually accepted code of proper conduct is dealt with as the particular case may demand.

In order that students may know how to attend to the business requirements of the institution in regard to their studies, the library, college organizations, etc., quite a full list of rules of procedure are given below. These rules, while designed primarily for college sudents, apply, in many instances, to students of the preparatory department as well. In all special cases, the preparatory department has its own rules.

A

Matriculation, etc.

1. A student when first entering college, or at the first term of any subsequent year, must present himself

To the President

who fills out the student's "admission card" and sends student with a "term assignment card"

To the Course of Study Committee,

which assigns studies, completes the "term card," and issues class cards to student, who goes

To the Registrar,

gives him the class cards, pays fees called for by his courses, takes receipt, and then reports

To the Instructors,

and shows each his receipt. If the receipt is satisfactory, the instructor gives the student an order for textbooks, etc., and then assigns the lesson. The student then goes

To the Librarian,

and, showing her the book order, filled and signed by the several instructors, get books, and surrenders order to the Librarian.

2. At the beginning of the second and third terms, a college student who has previously entered will procure a term assignment card from the *Registrar*, who will fill out the personal part of the card before giving it to the student; and the student will them go to the *Course of Study Committee* and the procedure will from this point be the same as at the beginning of the year, except that the student need not go the Registrar again unless he is assigned to a course which requires the payment of a special fee or deposit.

3. *Students* must preserve the receipts they receive at the beginning of the year, and show them to their instructors at the beginning of each term as a condition of admission to class. If the receipt is lost, a duplicate may be obtained from the Registrar upon payment of a fee of 10 cents.

4. *An Instructor* must not admit a student to his class, even though he have a class card, unless he shows the Registrar's receipt or receipts for all fees and deposits required of members of the college taking the course in question.

B

Grading, Examination, and Classification of Students

1. The system of grading is on a scale of 100.

2. At the end of term, unless special action be taken by the faculty to the contrary, examinations are held in all subjects, or parts of subjects, taught during that term.

3. In making up the term grade in any subject, in case an examination has been held, the average daily grade is added to the examination grade and the sum divided by two. In case no examination is held at the end of a term, the average daily grade is taken as the final mark for term.

4. The method of determining the average daily grade, except in the matter of absences, is left to the instructor in charge of the class.

5. In determining the average daily grade, an amount is deducted for unexcused absences proportional to the amount of work missed; unless the absence occurs in the first or last week of the term, or in the week preceding or succeed-

ing a vacation in which case it counts double. Excused absences count the same as those unexcused, unless the work missed is made up to the satisfaction of the instructor in charge.

6. Any student receiving an average daily grade of 85, or over, in any subject, may at the discretion of the instructor in charge, have this mark taken as the final grade for the term, in that subject, without having to take an examination.

7. If a student receive a final term grade of 70 or over, in any subject, he shall be passed; otherwise he shall be conditioned.

8. (a) A student conditioned in any subject has a chance to remove his condition by taking a re-examination in the subject. If he fail in the re-examination, or fail to take the same at the specified time, credit for the work will only be given after he has repeated the subject in class and made a passing grade on the same.

(b). All re-examinations for failures in entrance examinations, or in studies during any year except the senior, take place in the first week of the first term of the next year.

(c). All re-examinations for failures during the first two terms of the senior year must occur before the beginning of the third term of that year.

9. If a student, at the end of any term, fail in every subject or in every subject save one he may be at once dropped to a lower class, or from college, as the faculty may decide.

10. Whenever a student, by action of the faculty, is put into a lower class, he may be required to repeat all the studies of that class, whether he has previously passed in them or not.

11. No student taking a regular course is allowed to take up any subject in that course until he has passed in all preceding work necessary to fit him for that subject. Neither will such a student be excused from any prescribed work in that course except by special action of the faculty.

12. No special student is allowed to enter any class unless,

in the opinion of the instructor in charge, he is thoroughly prepared in all necessary preceding branches.

13. In case of any conflict in the course of study, unless otherwise ordered by the faculty, the higher subject shall give away to the lower.

14. Regular college students are classified as Freshman, Sophomores, Juniors, or Seniors, according to the number of hours work they have completed. Thus if the number of hours required per week is 20, the number of weeks per year 36, and the number of years 4, then the minimum number of hours required for graduation would be 20 x 36 x 4,—2880. In this case, a student would be classified as a Freshman until he had completed 720 hours, and thereafter as a Sophomore until he has completed 1,440 hours, etc.

In the above scheme, two hours of drawing, laboratory work, shop practice, or field work, are counted as equivalent to one hour recitation.

15. (a) No grade from another school will be accepted as an equivalent of work in this institution unless said school ranks as high as this one, and then only by special action of the faculty.

(b) In all other cases, in which a student desires credit for work done elsewhere, the same will only be given after the student passes a satisfactory examination in this institution.

16. A record is kept of the work of each student, and at the end of each term, reports showing the grades, etc., of the different students, are sent to their parents or guardians.

C

Graduation

1. Seniors having conditions at the beginning of the third term of the senior year will not be considered candidates for a degree.

2. A student, in order to graduate, must have completed the full amount of work included in one of the college courses of study, or an equivalent of the same which has been accepted by the faculty.

3. Each candidate for graduation is required to prepare a thesis, which shall be passed upon by a committee consisting of the head of the department in which the work was done, the professor of English, and the president.

4. Any graduate may be required by the faculty to give an exercise on commencement day, consisting of an oration or an extract from or an abstract of the thesis.

5. Subjects for thesis must be presented to the faculty for approval not latter than the end of the second term of the senior year.

6. All theses must be handed in for inspection by the committee referred to under section 3, before the beginning of the senior vacation, and the finished thesis must be filed with the registrar not latter than the beginning of the second week of the senior vacation.

7. A thesis in order to be finally accepted, must be clearly written or type written, on good linen paper, size 8x10½ inches, bound, and a copy delivered to the registrar for permanent preservations.

8. Seniors are given a vacation during commencement week and the week immediately proceding.

D

Absence and Tardiness

1. A male student who is absent or tardy must state the reason for such absence or tardiness, to the different instructors concerned, the first time he meets said instructors in class thereafter. If no such statement is rendered the student will be marked zero for the work missed.

2. A female student must, in a similar manner, present to the different instructors concerned, not later than the second time she meets said instructors in class thereafter, a written statement from the dean of women as to whether an absence or tardiness has been satisfactorily explained.

3. Any student who is absent from a regular examination at which the should be present, shall be required to present to the instructor in charge a satisfactory excuse for the same,

in default of which said student shall at once be supended from college.

E

The Library

1. Subject to the following rules, books and periodicals may be drawn from the library by making the necessary application to the librarian.

2. (*a*.) Temporary assignment of library books may be made to the different departments of the institution by the librarian, subject to the approval of the president. Books so assigned may be recalled at any time.

(*b*.) Indefinite assignment of library books and periodicals may be made to the different departments by the library committee, subject to the approval of the faculty. Books and periodicals so assigned can only be recalled by faculty action.

3. No library book, unless in a department library, may be kept out for more than two weeks consecutively. For each day over time a fine of three cents is imposed.

4. Encyclopedias and similar works of reference must not be taken out of the library, except by special permission of the librarian.

5. (*a*.) Current numbers of periodicals may not be kept out of the library longer than over night, except during the period from Friday evening to Monday morning. (*b*). The first seven issues of the dailies, the last four issues of the weeklies and the last two issues of the monthlies are considered current numbers.

6. Current numbers of periodicals may not be drawn sooner than one hour before the library is closed and must be returned by 9:00 a. m. of the day on which rule 5 calls for their return.

7. Periodicals, other than current numbers, will be governed by the same rules as library books.

8. No book or periodical assigned to any department may be drawn without the express consent of the head of that department.

9. Fines will be imposed by the librarian for loss of or unreasonable damage to library books or periodicals.

F

College Organizations

1. The public exercises of all societies, classes, athletic teams, or other organizations connected with the college, are subject in time, place, and character, to the approval of the faculty. All rooms assigned for the use of societies or other organizations shall be occupied subject to the faculty's control.

2 All societies, classes, athletic teams, or other organizations connected with the college are required to notify the faculty in writing of all dates desired for public exercises. When possible, such notices shall be given at least two weeks before such exercises are to be given.

3. The faculty reserves the right of passing upon the constitution and by-laws, and all subsequent amendments to the same, of all societies organized in connection with the college.

G

Miscellaneous

1. *(a)* Stalls are provided for the horses of officers and students who ride or drive to the college. These stalls are rented at the beginning of each term, twenty-five cents per term being charged for each single, and fifty cents per term for each double stall; the amount to be paid in advance.

(b) The members of the faculty and other officers have first choice of stalls, and the Seniors, Juniors, Sophomores, Freshmen, students in the stenography course, preparatory students and special students, have choice of the remainder in the order named.

2. Carriages must be so arranged about the horse stalls that an open passage is left between the carriages and stalls, and horses must not be tied in places where they block the passage to the stalls.

3. The first Friday in May is a holiday set apart for athletic sports, and is known as Field Day.

4. The faculty may, at any time, deprive a student, whose college work is unsatisfactory, of the privilege of taking part in any team or public athletic work.

5. Smoking, or the carrying of lighted pipes, cigars, or cigarrettes, is not permitted in or about any of the buildings of the college and experiment station.

DONATIONS AND CONCESSIONS

During the past history of the college, a number of things have been given to the institution and exceptional concessions have been made upon the prices of material which it was necessary to buy. A complete list of such articles as have been received to date, has been published in previous catalogues. Appended will be found a list of all gifts received during the scholastic year of 1903-1904, for which the management of this institution wishes hereby to express its most sincere gratitude.

The various departments of the institution will gladly receive any gifts of material, specimens, books, separates, and apparatus which may be added to our museum, library, or teaching equipment, and will most willingly pay transportation if notified of the charges. Particularly is this true of mineralogical, geological, archæological, zoological, or botannical material from any part of the territory. Single specimens are of small value when thrown about the house, but a museum is made up of just such single specimens collected in one place and properly arranged. We need a good museum and already have some considerable collections to which we are adding all the time. We also have case room for such material, and men to take care of it properly. All communications on this subject should be addressed to the president and all material sent us should be bear the name and address of the sender.

DONATIONS FOR 1903-1904

To the Library

Montague's Rise of the Standard Oil Co	Harper & Bros.
Pamphlets	Fitchburg Public Library
Pamphlets	Wisconsin Free Library Commission
Hepburn's History of Coinage	Sound Money League
Natural Woods	Berry Bros., Detroit
Picture	Prof. Hiram Hadley
Nuevo Manual de Urbanidad y Buenas Maneras	Mr. J. O. Miller
Inside History of the Carnegie Steel Company	Mr. J. H. Bridge

A loan exhibit of valuable curios from the
Phillipine Islands, China, and Japan.........Mr. W. A. Sutherland
The Literary Digest.................................Prof. J. D. Tinsley

To the Department of Mechanical Engineering

Twenty Test-pieces of Steel Boiler-plates
Worth Bros. Co., Coatesville, Pa.

To the Department of Agriculture

A Pair of Thoroughbred Angora Goats
Mrs. M. Armer, Kingston, N. M.
A Box *Lippia repens*............Prof. A. J. McClatchie, Phœnix, Ariz.
One Sweep Rake, Waterloo Threshing Machine Co., Waterloo, Iowa.
One No. 6 Van Wie Centrifugal Pump
Baldswinsville Centrifugal Pump Works, Syracuse, N. Y.
One No. 6 Byron-Jackson Centrifugal Pump,
Byron-Jackson Machine Works, San Francisco, Calif.
One 22HP Gasoline Engine with Crude Oil Attachment, and
One No. 6 Fairbanks, Morse, & Co's. Centrifugal Pump,
Fairbanks, Morse, & Co., Chicago, Ill.
One No. 2 Roots' Improved Rotary Pump,
P. H. & F. M. Roots Co., Connersville, Ind.
One No. 6 Kingsford Centrifugal Pump,
Kingsford Foundry & Machine Works, Oswego, N. Y.
One No. 6 Wood's Centrifugal Pump,
R. D. Wood & Co., Philadelphia, Pa.
One No. 5 Johnson Rotary Pump,
Davis, Johnson & Co., Chicago, Ill.

To the Department of Biology

A Set of Botanical Papers relating to Western Botany,
Prof. Marcus E. Jones, Salt Lake City.

To the Department of English

Two Sets of Scenery for the Stage. Senior Preparatory Class, 1903-4.

To the Department of Mathematics

Five Large Maps of the Topographical survey of the
Mesilla Valley, U. S. G. S. Hydrog. Branch,
J. A. French, Engineer in Charge.

STUDENT ORGANIZATIONS

The Student Congress

This is an organization of the students of the institution which is especially designed to promote "self-government," and is encouraged by the Faculty for this reason only. The opinions and desires of this Congress usually receive consideration by the Faculty on matters relating to the welfare of the students, although the Faculty uses its best judgment as to when it shall consult the Congress. The power delegated to the Congress is only advisory, and in order to receive any consideration, its recommendations must be presented to the Faculty through the Student Conference Committee. This committee is always ready to meet the executive committee of the congress, to consider the wishes of the students, and reports all such requests, with recommendations, to the Faculty for action.

All students of the institution are members of the Student Congress. The members of the executive committee are elected each term, and are as follows: President, Secretary, and two delegates from each of the following classes; Senior, Junior, Sophomore, Freshman, Stenography, and Senior Preparatory. The officers for the third term are:

Reginald Hart	President.
Earl A. Graham	Secretary.

The Columbian Literary Society

The society was organized October 25, 1891, under the name of Alpha Chi. In 1892 this was changed to Columbian, since which time the society has made steady and prosperous growth. Until about the middle of 1894–5 only men were admitted as members, but since that time women have had equal membership privileges. The object of the society is to promote and encourage conscientious and practical literary and musical work by readings, essays, papers, debates, vocal and instrumental music, and such other exercises as the committee on program may prescribe. Each year the society gives a public entertainment, generally of a dramatic character, and the drill and training is of great value to those who take part. The self-possession, knowledge of parliamentary law, and skill in debate, which faithful members of this society gain, are of inestimable value to them in after life.

To be eligible to membership a student must be pursuing work in (1) any of the regular four year college courses, (2) either of the two year short courses, or (3) either of the stenography courses. A fee of two dollars is charged each new member, which fee admits him to the society and gives him one year's subscription to the college paper. Dues of fifty cents are paid each succeeding term. Attendance on all regular meetings is obligatory, and non-performance of duty is punishable by a fine.

Regular meetings are held on Friday afternoon of each week and an evening meeting is held on the second Friday of each month. Visitors are allowed during the literary part of the meetings. Officers are elected at the beginning of each term. The officers for the third term are:

C. D. Case	President
L. W. Case	Vice President
Trust Pearson	Recording Secretaty
Blanche Orr	Corresponing Secretary
Pinckney Ford	Treasurer
Annis Ford	Librarian
Benj. Nabours	Critic
Lute Foster	Vice-Critic
Bolling Hall	Marshal
Walter Goebel Earl A. Graham Kent Lockwood	Literary Committee
John Blinn E. G. Piper Bolling Hall	Executive Committee

El Liceo Cervantes

This is a literary society composed of students and others interested in the study of Spanish. The motto, "El que quiere hablar bien, debe principiar por hablar mal," indicates the spirit of the society, which encourages the faltering efforts of beginners, at the same time setting before them the more successful performances of advanced students. A considerable number of the members are native Mexicans, and their perfect command of the language affords excellent models for learners.

Meetings are held twice a month, and essays, readings, debates, discussions, songs, etc., are rendered, all in Spanish. A fine is imposed upon any one speaking English during a meeting without permission from the president. The meetings are open to the public.

The initiatory fee is fifty cents, and members pay dues of twenty-five cents each succeeding term.

The officers for the third term are:

E. Ornelas	Presidente
B. Quiroz	Vice Presidente
M. L. Hoblit	Secretario
J. O. Miller	Tesorero
A. Ornelas	Crítico
Theolinda Carrera	Vice Crítico
Flora Evans	Censor Morum
Flora Evans B. Quiroz A. Ornelas	Comité de Programa

The Minerva Literary Society

This society was organized in November, 1903, by the students of the Senior Preparatory Class. These students being ineligible for election in the Columbian, decided to form a society of their own, and have met with great success. The meetings, which are held on the first and third Wednesdays of the month, listen to programs of the usual literary character. Readings, recitations, debates, musical selections, and parliamentary routine give the members excellent training and the self-confidence so requisite for success in public appearance.

Membership in this society has not been confined to students of the Senior Preparatory class as later in the year students from all classes of the College were admitted to its ranks.

The officers for the third term are:

May Browning	President
Bessie Nabours	Vice-President
Flora Evans	Secy. and Treas.
Rowena Mott	Critic
Harry Parks	Vice-Critic
Jesse Mundell	Marshall
Trust Pearson Alice Ford E. G. Piper	Literary Comm.

The Stenographers' Association of New Mexico

This society is composed of members of the stenography department of the college, and also all former students of this department. No one else is eligible to membership.

The society was organized this year and has been very flourishing from its organization. Meetings are held every Friday at which programs, consisting of papers, debates, etc., of interest to stenographers, are rendered.

The colors of the society are crimson and white, and a neat pin has been adopted, consisting of a crimson letter "S" on a white background.

The officers for the third term are:

C. P. Wilson	President
A. W. Kuenzli	Vice-President
Sarah Myers	Secretary
Francis E. Lester	Critic
Chas. L. Pierce	Vice-Critic
Pinckney Ford Marguerite Ingram Lee Armstrong Robert Olinger Kent Lockwood	Executive Committee.

Lincoln Literary Society

In the fall of 1902, the students of the Preparatory Department organized a literary society which has been continued with much enthusiasm and success ever since. A very large per cent. of the students are members of the society. They elect their own officers, make their programs, and have charge of their meetings, the principal and teachers simply acting as advisory members.

Every Thursday afternoon, the last hour is given to the discussion of some stated question, each member being assigned a side and given an opportunity to take part in the debate. The larger part of every third Friday afternoon is devoted to a regularly prepared program of a miscellaneous nature. These meetings have been open to the public and have proved a source of much pleasure and profit to the students.

The officers for the last term of school are as follows:

Lytton Taylor	President
John Mourean	Vice-President
Arthur Fraker	Secretary
Robert Taylor	Treasurer
Edna Burk	Critic
Page Hines	Vice Critic
Simeon Exter Edward Wade Francisco Lucero Roy Shallenberger	Board of Directors

The Collegian

The New Mexico Collegian is the name given to the paper published by the Columbian Literary Society. It is a monthly publication devoted to the chronicling of college events and happenings—locally, socially, and of a literary character—and contains from 30 to 40 pages. The entire management is taken by those students who are members of the C. L. S and the staff is elected at the beginning of each term so that as many students as possible may have the practical experience in journalistic work. At the end of the year a souvenir Commencement number is issued, replete with pictures, local matter, and special articles of interest to the students and their friends. The subscription list includes practically all the students of the college, the alumni, and a large number of outside friends.

Essays and literary compositions of special value written by any student in connection with his college work are published in the Collegian, and this fact tends to make the students strive to do good work. The expenses of publication are paid from the money received from advertisements and subscriptions. The training in finance and business methods which this gives to the students, is of inestimable value.

Staff

The staff for the third term of 1903-4 is as follows:

L. W. Case	Editor in Chief
C. D. Case	Assistant Editor
Ruth Coleman Archie Brown	Local Editors
Pearl Miller	Social Editor
Merle Blinn	Exchange Editor
Bolling Hall	Athletic Editor
O. B. Metcalfe	Alumni Editor
Benj. Nabours	Business Manager
Reginald Hart	Assistant Manager

Athletic Association

Athletics have always been a prominent feature in the student life of this institution. The association was organized in 1893 and from that time to the present its growth has been steady and sound. The efficiency of the association is shown in its work. All but one of the territorial track athletic records are held by this college. Until recently the work has been confined at home but this will no longer be the case as the other institutions are now putting teams in the field. An Intercollegiate Athletic Association was formed in 1902 which is already bearing fruit. The first meet under its direction was held here in June 1902—this school carrying off the honors. A second was held in Albuquerque in May 1903, and a third in 1904, again at Mesilla Park, this institution being victorious in both.

Much is expected of athletics in the future as the association is on a firmer footing than ever in its history. The new constitution recently adopted to meet the changed conditions puts the association on a firmer and surer standing. The officers, elected annually by the association as a whole, form what is known as the Athletic Board. Under the direction of this Board all athletics are controlled, all expenditures are approved and checked. One thing to the credit of the organization is that it has not failed to meet its obligations and is extremly careful in contracting same. A new feature of the constitution is the formation of an Advisory Board composed of the Athletic Board, Team Managers, Faculty Athletic Committee, and two resident graduates. Much benefit is expected to result from the work of this body.

The College campus is probably the best in the territory; it is excellently situated and equipped with good fields for foot ball, base ball, tennis courts, a quarter mile track and a 220 straightaway, etc.

The various teams that represent the College under the direction of the association are among the strongest of the territory. This year the foot ball team was scored upon but once; the basket ball team holds the territorial championship, having won every game except one played; the prospects for a winning base ball team was never better, and we undoubtedly have the best track men in this section of the southwest.

A member of the association has access to foot ball and base ball suits, tennis courts and balls, the usual outfit for field sports, and a shower bath on the grounds.

The cost of membership is, for men, an admission fee of one dollar ($1.00), a monthly assessment of 25c, while for women the charges are half this amount. Quite a few of the members are girls who take active part in tennis and basket ball.

The officers of the association for 1903–'04 are:

Benj. Nabours	President
J. W. Bouts	Vice-President
Flora Evans	Secretary
U. G. Brown	Treasurer
C. T. Hagerty	Auditor
C. D. Case	General Manager
Oscar C. Snow, B. S. '94	Member Advisory Board
Geo M. Williams, B. S. '98	Member Advisory Board

ALUMNI

Officers of Alumni Association

	For 1903-1904	For 1904-1905.
President	Geo. M. Williams	R. R. Larkin
First Vice-President	Frances French	Fabian García
Second Vice-President	I. H. Stanley	Minnie Sutherland
Secretary	Elizabeth C. Foster	Lute Foster
Treasurer	O. C. Snow	A. B. Sage

Class of 1894

Fabian Garcia, B. S., Professor of Horticulture and Horticulturist to the Experiment Station, New Mexico College of Agriculture and Mechanic Arts, Mesilla Park, New Mexico.

Mrs. Agnes Herbert, (née Williams), B. S., Housewife, Hondo, New Mexico.

R. Roy Larkin, B. S., Principal High School, Las Vegas, New Mexico.

Lamuel C. McGrath, B. S., Merchant, Lordsburg, New Mexico.

Oscar C. Snow, B. S., Ranchman Mesilla Park, New Mexico.

Class of 1895

Mrs. Jesse Rhodes, (née Casad), B. S., Housewife, El Oro, D. F., Mexico.

Class of 1896

Mae Gilmore, B. S., Alto, New Mexico.

Alfred M. Holt, M. S. Deceased, 1901.

Albert H. Peterson, B. S., Mechanic, Chicago, Ill.

Clarence E. Rhodes, B. S., with American Mining Co., El Oro, D. F., Mexico.

Class of 1897

Joseph F. Bennett, Jr., M. S., with the Sullivan Machinery Co., El Paso, Texas.

Elgin B. Holt, B. S., St. Louis, Mo.

Arthur E. Williams, B. S., County Surveyor Lincoln Co., Lincoln, N. M.

Class of 1898

Edwin E. Casey, B. S., U. S. V. Deceased 1898.

Duval G. Cravens, B. S., Master of Mathematics and Spanish, St. Alban's School, Radford, Va.

Charles E. Mead, B. S., Druggist, San Marcial, N. M.

Iva R. Shallenberger, (née Mead), B. S., Housewife, Albuquerque, N. M.

Isaac H. Stanley, B. S., Pinos Altos, N. M.

William A. Sutherland, B. S., Superintendent of Filipino Students in the U. S. Bereau of Insular Affairs, Washington, D. C.

Lottie Sweet, B. S., Teacher, Las Cruces, N. M.

George M. Williams, B. S., Ranchman, Las Cruces, N. M.

Class of 1899.

Edward J. Coe, B. S., County School Superintendent, Lincoln Co., Lincoln, N. M.

Walter E. Holt, B. S., U. S. Customs Service, El Paso, Tex.

John D. Tinsley, B. S., Professor of Physics and Soil Physicist, Vice Director of the Exper. Sta. N. M. College of A. and M. Arts, Mesilla Park, N. M.

Class of 1900

William Cory Meeker, B. S., Clifton, Arizona.

Charles Lewis Post, M. S., Surveyor, Mesilla Park, N. M.

Archie Bruce Sage, B. S., Assistant Professor in Mechanical Engineering, N. M. College of A. and M. Arts, Mesilla Park, N. M.

Halbert E. P. Thomas, B. S., Deceased.

Class of 1901

Leah Nora Newberry, B. S., Teacher, Las Cruces, N. M.

Minnie Wilson Sutherland (née Newberry), B. S., Housewife, Washington, D. C.

Alfredo Marcos Sanchez, M. S., Soil Physicist, Bureau of Agric., P. I.

Matthew Steel, M. S., Office of Experiment Stations, U. S. D. A., Washington, D. C.

Class of 1902

Theron Catlin Bennett, B. S., with The Kremer Music Publishing Co., Chicago, Ill.

Elizabeth Coger, (née Coleman), B. S., Housewife, Alamogordo, N. M.

Elizabeth C. Foster, B. S., Las Cruces, N. M.

Frances French, B. S., Teacher, Las Cruces, N. M.

James Stanislaus Macgregor, M. S., Assistant in Dept. Mechanical Engin., N. M. Coll. Agr. and Mech. Arts, Mesilla Park, N. M.

Class of 1903

Fannie Ford, B. S., Teacher, Las Cruces, N. M.

Maude McFie, B. S., Travelling in Europe.

Orrick Metcalfe, M. S., Assistant in Botany, N. M. College of A. & M. Arts, Mesilla Park, N. M.

Ina Nelson, B. S., At home, Lake Valley, N. M.

Class of 1904

C. D. Case, B. S., Chicago, Ill.

L. W. Case, B. S., With the Attica Herald, Attica, Ind.

Lute Foster, B. S., At home, Las Cruces N. M.

Mrs. Orpha Hobbit, B. S., Housewife, Mesilla Park, N. M.

Pearl Miller, B. S., At home, Denver, Colo.

Rowena Mott, B. S., At home, Las Cruces, N. M.

CATALOG OF STUDENTS

Graduate

Metcalfe, Orrick B.	Silver City

Senior

Case, Clarence D.	Attica, Ind.
Case, Lauren W.	Attica, Ind.
Foster, Lute	Las Cruces
Hoblit, Mrs. Orpha B.	Mesilla Park
Miller, Pearl C.	Denver, Colo.
Mott, Rowena	Las Cruces

Junior

Harney, Annetta May	Cerrillos
Hart, Reginald H.	El Paso, Texas
Nabours, Benjamin F.	White Oaks
Ornelas, Efrén	Chihuahua, Mexico
Ramirez, Rafael	Mesilla Park
Schutz, Harry H.	El Paso, Texas

Sophomore

Blinn, Mary	Kelly
Blinn, Merle A.	Kelly
Bouts, John W.	Topeka, Kas.
Brown, Archie	Gallup
Brown, Ulysses S.	Gallup
Coleman, Ruth	Mesilla Park
Ford, Annis B.	Las Cruces
Given, Guy C.	Hillsboro
Graham, Earl A	Patterson
Newberry, H. Clay	Mesilla Park
Pelphrey, William H	Alamogordo

Freshman

Ascárate, Nemecia	Las Cruces
Freeman, John J.	Berino
Graham, Allen Givins	Patterson
Hostetter, Cecil	Las Cruces
Hostetter, Hazel	Las Cruces
Pattison, William	Gallup
Payne, Chester	El Paso, Texas
Pearson, Trust	Hillsboro
Yoast, Irvin H.	Las Cruces

Special

Blinn, John	Kelly
Bloodgood, Dean W. A	Kingston
Browning, May	Deming
Bruno, José A	Guayama, Porto Rico
Davis, Franklin	Mesilla Park
Deemer, Phyllis B	Mapami, Durango, Mexico
Deemer, Ralph B	Mapami, Durango, Mexico
Deemer, Mrs Prudy	Mapami, Durango, Mexico
Dougherty, Evelyn B	Santa Fé
Foster, Ethel	Las Cruces
Foster, Flossie	Las Cruces
Goebel, Walter E	Belen
Hall, Bolling	Waynesville, N. C.
Macarthur, Grace	Reaburn, Manitoba, Canada
Miller, Jno. Geo	Santa Fé
McGuire, D. H	Wharton, Texas
Neal, Homer H	Mesilla Park
Piper, Edward G	El Paso, Texas
Preston, Jr., Geo. B	Las Cruces
Quintero, José A	Las Cruces
Sage, Mrs. June H	Mesilla Park
Stover, Nora Lee	Mesilla Park
Vernon, Mrs. Harriett	Mesilla Park
Wallace, Miriam L	Cloudcroft

Practical Mechanics

Alderete, Juan	Las Cruces
Arrey, Lazarro	Pinos Altos
Balizan, Estanislado	Las Cruces
Carrera, Emil P	Las Cruces
Carrasco, Manuel	Mesilla
Gonzales, Jesus F	Mesilla Park
Gonzales, José	Las Cruces
Kinsell, Ralph C	Santa Fé
Llewellyn, Jr., Wm. H. H	Las Cruces
Lowe, Joseph W	Las Cruces
Nattress, Charles H	San Marcial
Newton, Fred. N	Mesilla Park
Parks, Harry L	Lake Valley
Randall Claude	Fort Bayard
Sampson, Irving W	Las Cruces
Serna, Patricia	Mesilla

Two Year's Course in Agriculture

Cadwallader, Edgar	Highrolls

Spanish Correspondence Course

Ashdill, E. D	Denver, Colo.
Baker, Anna T	New York City
Carrington, Harley	Birmingham, Ala.
Gibbs, Hannah M	Luverne, Minn.
Richards, Robert R	South Bend, Ind.

Stenography

Abbott, Albert J	Santa Fé
Alexander, Cecil	Hillsboro
Alexander, Lolita	Hillsboro
Allen, T. George	Rockford, Ill.
Armstrong, Lee	Woodsfield, Ohio
Berger, Edna E	Santa Fé
Bishop, Carl	Santa Fé
Bragg, L. Leona	Mesilla Park
Cayot, Francis	Las Vegas
Cross, Elizabeth	Santa Fé
Hargrave, Edwin W	Mendocino City, Cal.
Ingram, Marguerite R	Rosedale
Kiehne, Myrtle	Socorro
Kuenzli, Arthur W	Milwaukee, Wis.
Lapoint, William P	Las Cruces
Llewellyn, Gladys	Las Cruces
Lockwood, Kent F	Lake Valley
Magrath, Nellie	Argentin, Kansas
Mellen, E. R	Amboy, Ill.
Mellen, R. H	Amboy, Ill.
Millington, Edith	El Paso, Texas
Myers, Sarah	Albuquerque
Nevares, Jesus F	Las Cruces
Olinger, Robert W	Mesilla Park
Orr, Blanche	Hanover
Pierce, Charles L	Aiken, S. C.
Reza, Adolfo	Las Cruces
Rigney, Alma	Belen
Wilson, Clarence P	El Paso, Texas
Winkler, Emily G	Socorro
Winkler, Laura E	Socorro

PREPARATORY SCHOOL

Senior Preparatory

Dessauer, Philip E	Las Cruces
Endicott, William	Lake Valley
Evans, Flora L	El Paso, Texas
Ford, Alice B	Las Cruces
Ford, Lela Ray	Las Cruces
Gilliam, Rex E	Mesilla Park
Helde, George G	Central
Isaacks, Coila N	Las Cruces
Johnson, Clarence	Gallup
Mundell, Jesse E	Capitan
Nabours, Bessie L	White Oaks
Poe, James R	Mesilla Park
Quintero, Fernando	Las Cruces
Ramirez, Juan	Las Cruces
Scoggins, Beulah	Mesilla Park
Steel, James A	Las Cruces
Stover, Maggie M	Mesilla Park
Sutherland, Sidney M	El Paso, Texas
Sweet, Jacob A	Las Cruces
Tompkins, Ruth	White Oaks
Wintersteen, Guy	Orrville, Ohio

Junior Preparatory

Alleman, Herbert N	Chihuahua, Mexico
Caldwell, George Robertson	Mesilla Park
Exter, Simeon	Rosedale
Laudenslager, James	Santa Fe
Lindsay, Monroe	Tucumcari
Lucero, Francisco F	Las Cruces
Lucero, Miguel	Mesilla
Nabours, Myrtle	White Oaks
Newell, Fay	Las Cruces
Shallenberger, Roy	San Marcial
Stewart, Herbert C	Mesilla Park
Taylor, Lytton	Coalora
Uranga, Armando R	Mesilla Park
Wade, Jr., Edward C	Las Cruces

A Class

Ames Walter	Las Cruces
Baker Stuart	Las Cruces
Bickel, Carl	Kimball, Neb.

Burke, Edna	Mesilla Park
Coleman, Daniel	Mesilla Park
Cortazar, Carlos	Chihuahua, Mexico
Deemer, Dixon	Mapami, Durango, Mexico
Forwood, May	Las Cruces
Foster, Doris	Las Cruces
Fountain, Albert J	Mesilla
Fraker, Arthur	Ocate
Frost, Ethel	Mesilla Park
Frost, Louise Mann	Mesilla Park
Hines, Elsie Raye	Las Cruces
Moren, Louis	Little Rock, Ark.
Moureau, Juan	Parral, Mexico
Quesenberry, Elizabeth K	Las Cruces
Redding, Edward	Mogollon
Redding, Vivian	Mogollon
Saucedo, José M	Las Cruces
Scoggins, Clifford	Mesilla Park
Trujillo, Candido J	Mesilla
Wright, Olive	Mesilla Park
Young, Donald W	Las Cruces

B Class

Angel, Agapito	Mesilla
Angel, Ygnacio	Mesilla
Bloodgood, Clyde A.	Kingston
Burch, Calita	Las Cruces
Cavitt, Katherine	Lake Valley
Clapp, Grace	Hatch
Dessauer, Numa	Las Cruces
Durling, Nethie	Los Cerrillos
Escudero, Enrique	Chihuahua
Guerra, Juan	Mesilla
Isaacks, Emitt	Las Cruces
Jurado, Gaspar	Jarilla
MacIver, Ivander	Mesilla Park
Mandell, Bertha	Mesilla Park
McCowen, Henry	Las Cruces
McCowen, Sophia	Las Cruces
Poe, Archie	Mesilla Park
Quesenberry, George	Las Cruces
Quiros, Bonifacio	Chihuahua, Mexico
Romero, Carlos	Chihuahua, Mexico
Romero, Clara	Coalora

Stewart, Rupert	Mesilla Park
Stover, Allie	Mesilla Park
Taylor, Robert E.	Mesilla Park
Wade, Wilson	Las Cruces
Wilson, Earl	Kingston

C Class

Alexander, James	Las Cruces
Babcock, May	Kelly
Baldwin, Henry F.	New Orleans, La.
Beckwith, William	El Paso, Texas
Bellina, Undine	Aguas Calientes, Mexico
Conway, Emil	Las Cruces
Cowley, Arthur	Kingston
Cox, Frank	Lake Valley
David, Charles Hall	Mesilla
Du Bois, Grace	Las Cruces
Duriez, Leo	Las Cruces
Forwood, Samuel	Las Cruces
Gamboa, Alfred	Mesilla
Gardiner, Otis	Magdalena
Graham, Earl J.	Engle
Guerra, José	Mesilla
Keese, Louis	Las Cruces
Keese, Oliver	Las Cruces
Mattocks, Harry	Mimbres
McMillen, Joseph	Silver City
Nabours, Florence	White Oaks
Scott, Ben	Las Cruces
Sedberry, Bessie	Las Cruces

Special Class

Aja, Macario	Juarez, Mexico
Baca, Antonio	Belen
Berdugo, Juan	Mesilla
Bruton, Edna	Socorro
Bruton, Jack	Socorro
Carrasco, Manuel	Mesilla
Fernandez, Benito	Chihuahua, Mexico
Gabaldon, Ramon	Belen
Geck, William J.	Anthony
Gonzales, Merced	Las Cruces
Humphrey, Jeff	La Cananea, Sonora, Mexico
Lucero, Luis	Las Cruces

McGovern, Isabel	Ft. Hancock, Texas
Means, Ed	Alpine, Texas
Ornelas, Aurelio	Chihuahua, Mexico
Rivera, Luis	Tortugas

List of Students Tabulated According to Classes.

Graduates	1
Seniors	6
Juniors	6
Sophomores	11
Freshmen	9
Specials (College Standing)	24
Practical Mechanics	16
Two Years Agriculture	1
Stenography	31
Spanish Correspondence	5
Senior Preparatory	21
Junior Preparatory	14
A Class	24
B Class	26
C Class	23
Special (Preparatory Standing)	16
Total	234

PROGRAM OF RECCITATIONS

FIRST TERM: MORNING						
TIME	SENIOR PREPARATORY	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	STENOGRAPHY
8:30	English (M. T. W. Th.*) Agriculture (F.)	English †	Spanish	Analytic Geometry Pomology	Mineralogy	Stenography
9:25	General History (T. W. Th. F.)	Plane Geometry	Physics	Floriculture (M. W.) Elementary Mechanics (M. T. W. Th.) English (F.)	Mineralogy	Com. English
10:20	Cooking (T. Th.) Freehand Drawing (M. W.) Floriculture (F.)	Livestock (M. W.) Greenhouse Handicraft (Th.) Latin	Physics (Th.) Trigonometry (M. T. W. F.)	Canning and Preserving (M. W. F.) Chemistry (T. Th.)	English (M. W.) Dairying (T. Th.)	Advanced Stenography
11:15	Cooking (T. Th.) Floriculture (M. W. F.) Millitary Drill (M. T. W. F.)	Greenhouse Handicraft (Th.) Millitary Drill (M. T. W. F.)	Trigonometry (Th.) Military Drill (M. T. W. F.)	Canning and Preserving (M. W. F.) Chemistry (T. Th.)	Steam Boilers Dairying	Millitary Drill (M. T. W. F.)

* M. T. W. Th. F.—Monday, Tuesday, Wednesday, Thursday, and Friday.

† Subjects without letters after them recite daily.

PROGRAM OF RECITATIONS

FIRST TERM: AFTERNOON

TIME	SENIOR PREPARATORY	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	STENOGRAPHY
1:00	Choral Class	Choral Class	Choral Class	Choral Class	Choral Class	Choral Class
1:30	Algebra	Spanish	Pattern Making	Chemistry (M. W. F.) Floriculture (T.) Meteorology (T. Th.)	Psychology Engineering Structures	Special Work
2:25	Carpentry (M. W. F.)	Biology Woodturning (M. W. F.) Mechanical Drawing (T. Th.)	Latin Pattern Making	Bench Work in Iron (M. W. F.) Machine Design (T. Th.) Floriculture (T.)	Machine Shop (M. W.) Machine Design (T. Th.) Agricultural Chemistry (T. W. Th.) Rural Engineering (M.)	Stegnography
3:20	Carpentry (M. W. F.) Agriculture (T. Th.) Sewing (M. T. W. Th.)	Biology (M. W. F.) Woodturning (M. W. F.) Mechanical Drawing (T. Th.) Greenhouse Management (T. Th.)	English	Astronomy Bench Work in Iron (M. W. F.) Machine Design (T. Th.) Entomology (M. W.)	Machine Shop (M. W.) Machine Design (T. Th.) Rural Engineering (M. W. F.) Dietetics (M. W.) Dressmaking (T. Th.)	Commercial Spanish

PROGRAM OF RECITATIONS

SECOND TERM: MORNING

TIME	SENIOR PREPARATORY	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	STENOGRAPHY
8:30	English (T. W. Th. F.) Horticulture (M.)	English	Spanish Descriptive Geometry Soil Physics (M. W.)	Calculus Cooking (T. W. Th. F.)	Geology	Advanced Stenography
9:25	General History (T. W. Th. F.) Horticulture (M.)	Plane Geometry	Physics Soil Physics (M. W.)	Cooking (T. W. Th. F.) Strength of Materials Stock Feeding	English (T. Th.) Agricultural Chemistry (M. W. F.) Hydraulics	Stenography
10:20	Cooking (T. Th.) Freehand Drawing W. F.)	Spanish Live Stock (M. T. Th.) Greenhouse Management (W.)	Physics (T.) Cooking (M. W. F.) Surveying (M. Th.)	Pomology (T.)	History of Civilization Agricultural Chemistry (M. W. F.)	Commercial English
11:15	Cooking (T. Th.) Military Drill (M. T. W. F.)	Live Stock (Th.) Military Drill (M. T. W. F.)	Cooking (M. W. F.) Surveying (Th.) Military Drill (M. T. W. F.)	Pomology (T.) English (Th.) Astronomy (F.)	Metallurgy (T. W. Th. F.)	Military Drill (M. T. W. F.)

PROGRAM OF RECITATIONS

SECOND TERM: AFTERNOON

TIME	SENIOR PREPARATORY	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	STENOGRAPHY
1:00	Choral Class	Choral Class	Choral Class	Choral Class	Choral Class	Choral Class
1:30	Algebra	Latin Greenhouse Handicraft (F.)	English Principles of Breeding (M. W. F.) Soils and Crops (T. Th.)	Political Economy (M. T. W. Th.)		Stenography
2:25	Carpentry (M. W. F.) Sewing (M. T. W. Th.)	Forging Biology (M. T. Th.) Greenhouse Handicraft (F.)	Surveying (M. W. F.) Mechanical Drawing (T. Th.) Sewing (M. T. W. F.) Soil Physics (T. Th.)	Chemistry (M. W. F.)	Steam Engine (M. T. W. Th.) Rural Economics (M. W. F.)	Commercial Spanish
3:20	Carpentry (M. W. F.) Horticulture (T. Th.)	Forging Biology	Surveying (M. W. F.) Mechanical Drawing (T. Th.) Latin Soil Physics (T. Th.)	Chemistry	Dressmaking (M. W.) Home Sanitation (T. Th.) Plant Breeding (M. W.)	Spanish Stenography

PROGRAM OF RECITATIONS

THIRD TERM: MORNING

TIME	SENIOR PREPARATORY	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	STENOGRAPHY
8:30	Live Stock (Th.) Military Drill (M. T. W. F.)	Military Drill (M. T. W. F.)	Physics (Th.) Military Drill (M. T. W. F)	Chemistry (T. W. Th. F.)	Geology	Military Drill (M. T. W. F.)
9:25	Live Stock (M. W. Th) Hygiene (W.) Sewing (T. Th.)	Solid Geometry	Physics	English (M) Chemistry (T. W. Th. F.)	Chemistry of Foods (M. W. F.) Analitical Mechanics	Advanced Stenography
10:20	Botany (M. T. W. F.) Cooking (Th.)	Spanish Live Stock (T. F.)	Cooking (T.)	Calculus Plant Physiology (T. W. Th. F.) Cooking (M. W. F.)	English (T. Th.) Agricultural Chemistry (M. W. F.)	Stenography
11:15	English (M. T. W. F.) Cooking (Th.)	English	Latin Cooking (T) Higher Algebra Bacteriology (M. W.)	Cooking (M. W. F.) Plant Physiology (Th.)	Agricultural Chemistry (M. W F.)	Spanish Stenography

PROGRAM OF RECITATIONS

THIRD TERM: AFTERNOON

TIME	SENIOR PREPARATORY	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	STENOGRAPHY
1:00	Choral Class	Choral Class	Choral Class	Choral Class	Choral Class	Choral Class
1:30	Algebra	Latin Horticulture (T. W. F.)	English Soils and Crops (T. W. Th. F.) Olericulture (M.)	Physiology Olericulture (M.) Pomology (Th.) Mechanism (T. W. Th. F.)	Electrical Engineering	Stenography
2:25		Biology (M. Th. F.) Carpentry (M. W. F.) Mechanical Drawing (T. Th.) Horticulture (T.)	Foundry (M. W. F.) Sewing (T. W. Th. F.) Olericulture (M.) Med. & Mod. History Descr. Geom. Plates (T. Th.)	Olericulture (M.) Pomology (Th,) Landscape Gardening (W. F.) Machine Shop (M. W. F.) Machine Design (T. Th.)	Chafing Dish (F.) Practical Agriculture Engine and Boiler Tests (T. Th.)	Commercial Spanish.
3:30	Chemistry (M. T. W. Th.)	Biology Carpentry (M. W. T.) Mechanical Drawing (T. Th.)	Foundry (M. W. F.) Spanish Descr. Geom. Plates (T. Th.) Olericulture (W. F.) Forestry (T. Th.)	Astronomy (Th.) Olericulture (W. F.) Machine Shop (M. W. F.) Machine Design (T. Th.)	Chafing Dish (F.) Dressmaking (T. Th.)	Office Practice

PROGRAM PREPARATORY DEPARTMENT

TIME	JUNIOR	A	B	C	I. SPECIAL	II. SPECIAL
8:30	Algebra		Grammar	Arithmetic		
9:05	Arithmetic	Grammar			Geography	Geography
9:40		Arithmetic	Reading & Spelling	Grammar	Arithmetic	
10:15	Grammar		Arithmetic			Arithmethic
10:50	Drawing	Drawing	Writing	Writing	Writing	Writing
11:15		Military		Drill		
1:15		General		Exercises		
1:30				Reading & Spelling	Reading & Spelling	
2:00		History				Reading & Spelling
2:30			Geography		Grammar	
3:00	Civics or Physiology	Reading & Spelling		Geography		Language
3:30	Physics or Physical Geog.	Writing	Drawing	Drawing	Drawing	Drawing

06

UNIVERSITY OF ILLINOIS

NEW MEXICO COLLEGE OF AGRICULTURE AND MECHANIC ARTS

1905–6

UNIVERSITY OF ILLINOIS
AUG 1918

SIXTEENTH ANNUAL REGISTER

New Mexico College

OF

Agriculture and Mechanic Arts

AGRICULTURAL COLLEGE

Catalog of Students for 1905-1906

AND

Announcements for 1906-1907

SANTA FE, N. M.:
The New Mexican Printing Company
1906

CALENDAR FOR 1905-1906

September	3-4, 1906,	Examination of candidates for admission and re-examination of deficient students.
“	3-4-5, 1906,	Matriculation of students.
“	5, 1906,	Assignment of students to classes and assignment of work by class instructors.
“	6, 1906,	Regular class work of first term begins.
November	2, 1906,	Recitations of first term end.
“	26-28, 1906,	Examination of classes for first term's work.
“	29, 1906,	Thanksgiving holiday.
December	3, 1906,	Assignment of students to classes for second term and assignment of work by class instructors.
“	4, 1906,	Regular class work of second term begins.
“	22, 1906,	Christmas vacation begins.
January	7, 1907,	Christmas vacation ends.
February	22, 1907,	Washington's Birthday—holiday.
March	1, 1907,	Recitations of second term end.
“	4-6, 1907,	Examinations for second term's work.
“	11, 1907,	Assignment of students to classes for third term and assignment of work by class instructors.
March	12, 1907,	Regular class work of third term begins.
May	3, 1907,	Field Day.
“	21, 1907,	Recitations of third term end.
“	22-24, 1907,	Examinations for third term's work.
“	26, 1907,	Baccalaureate Sermon.
“	27, 1907,	8 P. M., Annual Entertainment by the Musical Department.
“	28, 1907,	P. M., Annual Address to the Literary Societies.
“	29, 1907,	10:30 A. M., Commencement exercises.
“	29, 1907,	12:30 P. M., Alumni Meeting.

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BOARD OF REGENTS

Seaman Field, President, Deming, N. M.
H. B. Holt, Secretary and Treasurer, Las Cruces, N. M.
Granville A. Richardson, Roswell, N. M.
José Lucero, Las Cruces, N. M.
J. M. Webster, Hillsboro, N. M.

Advisory Members

Hon. Herbert J. Hagerman, Governor of New Mexico, Santa Fé, N. M.
Hon. Hiram Hadley, Supt. of Pub. Instruction, Santa Fé, N. M.

FACULTY FOR 1905-06

LUTHER FOSTER, B. S., Iowa State College, 1872; M. S. A., ibid., 1888. President and Professor of Political Economy and Psychology.

CLARENCE T. HAGERTY, B. S., Notre Dame University, 1890; M. S., ibid., 1895. Professor of Mathematics and Astronomy.

ELMER O. WOOTON, B. S., Earlham College, 1889; A. M. ibid., 1896. Professor of Biology, and in charge of Geology.

FRANCIS E. LESTER, Registrar and Principal of the Department of Stenography.

JOHN DABNEY TINSLEY, B. S., New Mexico Coll. of Agr. and Mech. Arts, 1899. Professor of Physics.

ALICE HORNING, B. S., Agricultural College of Oregon, 1882. Professor of Domestic Science, Dean of Women, and Matron of the Women's Hall.

JOHN J. VERNON, B. Agr., Iowa State College, 1897; M. S. A. ibid., 1900. Professor of Agriculture and Superintendent of Grounds.

D. M. RICHARDS, A. B., Oberlin College. Principal of the Preparatory School.

MERRITT LORRAINE HOBLIT, A. B., Kalamazoo College, 1901; A. B., University of Chicago, 1901. Professor of Spanish and Latin.

RALEIGH FREDERICK HARE, B. S., Alabama Polytechnic Institute, 1892; M. S., ibid., 1893. Professor of Chemistry.

JOHN R. MACARTHUR, A. B., University of Manitoba, 1882; Ph. D., University of Chicago, 1903. Professor of English and History.

FABIAN GARCIA, B. S., New Mexico College of Agriculture and Mechanic Arts, 1894; M. S. A. ibid., 1905. Professor of Horticulture.

EATON A. EDWARDS, Lieutenant Colonel U. S. Army, retired. Professor of Military Science and Tactics.

CHARLES E. PAUL, S. B., Massachusetts Institute of Technology, 1900. Professor of Mechanical Engineering and Superintendent of Buildings.

Other Officers of Instruction

GERALDINE COMBS, Assistant in Preparatory Department.

ARCHIBALD BRUCE SAGE, B. S., New Mexico College of Agriculture and Mechanic Arts, 1900. Assistant Professor in Mechanical Engineering Department.

CHARLOTTE A. BAKER, Librarian and Assistant in English.

*FRANCES ELIZABETH BLAKESLEY, B. L., Washburn College, 1895. Assistant in Preparatory Department.

JOHN OLIVER MILLER, B. S., University of Colorado, 1899. Assistant to the Registrar and in the Department of Stenography and Typewriting.

ELIZABETH E. SHIMER, M. E., State Normal School, Kutztown, Pa., 1891. Assistant in Preparatory Department.

**PINCKNEY FORD, Assistant in the Department of Stenography and College Stenographer.

JOHN M. SCOTT, B. S., Kansas Agricultural College, 1903. Assistant in Animal Husbandry.

FLORENCE J. FOSTER, B. S., Montana Agricultural College, 1896. Instructor in Domestic Art.

MARTHA A. BENNETT, Student in the Chicago Auditorium Conservatory and Chicago Musical College under Walter Keller, Frederic Grant Gleason and Felix Borowski, and as a private pupil under Wilhelm Middelschulte and Carl A. Preyer. Instructor in Piano Music.

MAUD MORRISON, Graduate of the Illinois Conservatory, 1898; and student under Francis Fischer Powers, New York City, and Frederick W. Root, Chicago. Instructor in Vocal Music.

JENNIE THOMPSON, Housekeeper of Women's Hall.

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* Resigned January, 1906.

** Resigned September, 1905.

SINGLETON REYNOLDS MITCHELL, B. S., Purdue University, 1902. Assistant in the Chemical Department.

†THOMAS B. GREEN, B. S., in Ag., N. M. Coll. of Ag. & Mech. Arts, 1905. Assistant in Irrigation.

JOHN GEORGE MILLER, Assistant in Mechanical Engineering.

§RAFAEL RAMIREZ, B. S., in Ag., N. M. Coll. of Ag. & Mech. Arts, 1905. Assistant in Irrigation.

JENNIE A. THOMAS, State Normal School, Oskosh, Wisconsin. Assistant in Preparatory Department.

‡A. CLEVELAND HARTENBOWER, B. S., Oklahoma Agricultural and Mechanical College. Assistant in Irrigation.

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† Deceased September, 1905.

‡ Appointed March, 1906.

§ Resigned February, 1906.

FACULTY COMMITTEES

Course of Study

Clarence T. Hagerty, *Chairman.*
E. O. Wooton — Chas. E. Paul
J. J. Vernon

Catalog

E. O. Wooton, *Chairman.*
J. R. Macarthur — F. E. Lester

Judiciary

M. L. Hoblit, *Chairman.*
C. T. Hagerty — R. F. Hare

Buildings and Grounds

Chas. E. Paul, *Chairman.*
J. J. Vernon — F. Garcia

Entertainment

Alice Horning, *Chairman.*
F. Garcia — R. F. Hare

Extension Work and Advertising

F. E. Lester, *Chairman.*
M. L. Hoblit — J. D. Tinsley

Student Conference

Chas. E. Paul, *Chairman.*
F. Garcia — Geraldine Combs

Library

J. D. Tinsley, *Chairman.*
J. R. Macarthur — E. O. Wooton
Miss Baker, *ex officio.*

Athletics

J. J. Vernon, *Chairman.*
J. D. Tinsley — E. A. Edwards

Literary Societies and College Paper

J. R. Macarthur, *Chairman.*
M. L. Hoblit — F. E. Lester

NOTE: The president is ex officio a member of all committees.

GENERAL STATEMENT

Location

The New Mexico College of Agriculture and Mechanic Arts occupies a beautiful and commanding position just to the west of Mesilla Park, Doña Ana county. A few miles to the east rise the Organ Mountains, one of the most picturesque ranges of the Rockies. To the west at a distance of three miles flows the Rio Grande. Mesilla Park is a rapidly increasing and thriving little town containing several stores, a comfortable hotel, a public school, and an Episcopal church. It is situated on the main line of the Santa Fé railway, runing from Albuquerque to El Paso. The latter city, which is only forty miles distant and about an hour's journey on the train, is the junction of no less than nine railroad lines. This fact makes the college easily accessible from all parts of the territory and its borders. To the north of the college, at a distance of about two and a half miles, is the town of Las Cruces, which has a population of about four thousand. Here are to be found several educational institutions consisting of a public school, a large convent conducted by the Sisters of Loretto, and two mission schools. Regular church services are held in Las Cruces by the Methodist, Presbyterian, and Roman Catholic denominations, and arrangements are made whereby college conveyances take the students to and fro on Sundays, The glorious weather throughout the whole year and the healthfulness of the Mesilla valley, together with the presence of the college and its preparatory school, make this portion of the territory a most desirable locality for parents who wish a combination of climatic and educational advantages. The community is morally a most wholesome one. There is no saloon in Mesilla Park, and a recent act of the legislature has made it illegal to open one within a mile of the limits of the college property. This will keep these undesirable features at a distance of almost two miles from our main buildings.

Historical

On February 28, 1889, the Twenty-eighth Assembly of New Mexico approved an act establishing the New Mexico College of Agriculture and Mechanic Arts.

Section 19 of this act defines the purpose of the institution to be as follows:

"The Agricultural College created and established by this act shall be non-sectarian in character, and devoted to practical instruction in agriculture, mechanic arts, natural sciences connected therewith, as well as a thorough course of instruction in all branches of learning bearing upon agriculture and other industrial pursuits."

Section 20 of the same act sets forth the branches in which instruction may be given:

"The course of instruction of the college hereby created shall embrace the English language, literature, mathematics, philosophy, civil engineering, chemistry, animal and vegetable anatomy and physiology, the veterinary art, entomology, geology, political, rural, and household economy, moral philosophy, history, mechanics, and such other sciences and courses of instruction as shall be prescribed by the regents of this institution of learning."

Section 25 of the act gives the assent of the Legislature to the act of Congress, approved on March 2, 1887, and known as the Hatch Act, whereby Experiment Stations were to be established within the Territory of New Mexico in connection with the Agricultural College.

The college was formally opened on Tuesday, March 10, 1890.

Income

The revenues of this College are derived from the following sources:

1. Students' fees.
2. Sale of farm products.

3. Territorial tax and special appropriations.

4. The United States, under Congressional Act of August 30, 1890—the Morrill fund.

5. The United States, under Congressional Act of March 2, 1887—the Hatch fund.

6. The United States, under Congressional Act of March 16, 1906—the Adams fund.

The money received from fees and farm products has, so far, been very limited, and has been applied to the payment of such expenses as are not provided for by an act of Congress.

The Territorial Act creating the institution provided for an annual levy of one-fifth of a mill commencing with the year 1889. The Thirty-fifth Legislative Assembly increased the rate to two-fifths of a mill, and the levy will hereafter yield an annual income of about $13,000.

The Morrill fund was created by the United States law of August 30, 1890, "for the more complete endowment and support of the Colleges of Agriculture and Mechanic Arts in the several States and Territories." It is paid over to them before July 31 of each year. The College received this fund first in 1890, to the amount of $15,000. Henceforth the fund will amount to $25,000. This fund can be applied *only* to "instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural, and economic sciences, with special reference to their application in the industries of life, and to the facilities for such instruction." *No part of this fund may be used for building or repairs, nor for ordinary running expenses, such as salaries of administrative officers—as president, clerk, librarian, etc.,—equipment of the library, and ordinary furniture, stationery, printing, etc., nor for teaching any subject not referred to in this act.* The theory of the federal government in accordance with which these appropriations have been made, is that the the State or Territory must provide the buildings and grounds and keep them in repair, and must also provide for all the general administrative expenses of the college, and that the federal appropriation is to be used only for the purposes of paying teachers and supplying the necessary books and apparatus for teaching the specific subjects mentioned in the act.

By the United States law of March 2, 1887, the *Hatch Act*, appropriations are made for the maintenance of Experiment Stations in connection with Agricultural Colleges in the several States and Territories. For the support of each station there is set apart the sum of $15,000 a year, payable quarterly. This money must be used for "paying the necessary expenses of conducting investigations and experiments, and printing and distributing the results." Bulletins showing progress must be printed each quarter, and be sent to each newspaper in the Territory and to all farmers who apply for them. This fund first became available for this College in 1889-90, to the amouat of $10,000. Since July 1, 1890, $15,000 a year have been received. *After the first year, only five per cent. of this fund may be used to erect, enlarge, or repair buildings for the use of the Experiment Station; and no part of it may be applied to the expenses of instruction or to general college purposes. It must be applied exclusively to the carrying on of agricultural experiments and to the dissemination of the results thereof.*

By the provisions of the Adams Act, which became a law March 16, 1906, the college will receive an additional appropriation "for the more complete endowment and maintainance of the Agricultural Experiment Stations." Of this appropriation $5,000 will be paid before July 1, 1907, and $2,000 additional each year until the annual appropriation amounts to $15,000. This appropriation can only be used for "paying the necessary expenses of conducting original researches or experiments bearing directly on the agricultural industry of the United States." The provisions of this act are more binding than those of the Hatch act. The money must be used for experimentation and research alone: even the expense of printing the results of such research must be paid from some other fund. None of this fund may be spent for buildings or rentals, library, demonstrational, or administrative work.

Endowment

By an Act of Congress, approved June 21, 1898, this College was given 100,000 acres of public land, the proceeds of which are to form a permanent endowment fund. This land has all been located, a small portion has been leased, and the remainder will be either leased or sold as soon as possible.

The institution is now receiving a small income from this source.

Requirements for Admission

Candidates for admission to the *Freshman* year will be admitted without examination upon completion of the subjects of the Senior Preparatory year, or on a certificate showing that the same or an equivalent amount of work has been completed at any of the following High Schools:

Albuquerque High School.
Deming High School.
El Paso High School.
Las Vegas High School.
Raton High School.
Roswell High School.
Gallup High School.
Clayton High School.
Alamogordo High School.
Carlsbad High School.
Santa Rosa High School.
Artesia High School.
Santa Fé High School.

Other candidates must pass examinations in the following subjects:

English.—Scott & Denney's Elementary English Composition, or its equivalent. No applicant will be admitted who is unable to write English fairly correct in spelling, punctuation, paragraphing, etc., and free from gross grammatical and rhetorical errors. Some knowledge of literature is also required.

General History.—Myer's General History or Sheldon's General History, or their equivalent.

Algebra.—Milne's Academic Algebra through logarithms, or its equivalent.

Physics.—Harrington's Grammar School Physics, or its equivalent.

Physical Geography.—Davis' Physical Geography, or its equivalent.

Physiology.—Hutchison's Physiology and Hygiene or its equivalent.

Civil Government.—Young's Studies in Civics, or its equivalent.

Free-hand Drawing.—At least a year's thorough work.

Arihmetic.—Wentworth's Practical Arithmetic, or its equivalent.

History of the United States.—McMaster's School History of the United States, or its equivalent.

Geography.—Redway and Hinman's Natural Advanced Geography, or its equivalent.

Students coming from other colleges whose requirements for admission are substantially equivalent to those of this college may be admitted to corresponding classes here provided they bring certificates showing amount of work completed. Other candidates for advanced standing will be examined in the subjects prescribed for admission, and also in the undergraduate studies with which they desire to be credited.

All applicants for admission must furnish satisfactory evidence of good moral character. The President and Faculty reserve the right to reject students who appear to be too immature to live away from home.

COURSES OF STUDY

THE COLLEGIATE COURSES OF STUDY ARE AS FOLLOWS

Freshman Year

AGRICULTURE	MECHANICAL ENGINEERING	DOMESTIC SCIENCE	GENERAL
FIRST TERM			
*1 Mathematics (Geom. Pl.), 5. 1 English, 5. 1 Zootechny (Livestock), 2. 1 Biology (Zool.), 2+6P. 1 Horticulture (Greenhouse), 1+2P.	1 Mathematics (Geom. Pl.), 5. 1 English, 5. 1 Spanish or 1 Latin, 5. 22 Mech. Engin. (Woodturning), 4P. 1 Mech. Engin. (Drawing), 4P.	1 Mathematics (Geom. Pl.), 5. 1 English, 5. 1 Spanish or 1 Latin, 5. 1 Biology (Zool.), 2+6P.	1 Mathematics (Geom. Pl.), 5. 1 English, 5. 1 Spanish or 1 Latin, 5. 1 Biology (Zool.), 2+6 P.
SECOND TERM			
2 Mathematics (Geom. Pl.), 5. 2 English, 5, 2 Zootechny (Livestock), 2+2P. 2 Biology (Zool.), 2+6P. 2 Horticulture (Greenhouse), 1+2P.	2 Mathematics (Geom. Pl.), 5. 2 English, 5. 2 Spanish or Latin, 5. 22 Mech. Engin. (Forging), 10P.	2 Mathematics (Geom. Pl.), 5. 2 English, 5. 2 Spanish or 2 Latin, 5. 2 Biology (Zool.), 2+6P.	2 Mathematics (Geom. Pl.), 5. 2 English, 5, 2 Spanish or 2 Latin, 5. 2 Biology (Zool.), 2+6 P.
THIRD TERM			
3 Mathematics (Geom. Sol.), 5. 3 English, 5. 3 Zootechny (Livestock), 2. 3 Biology (Botany), 2+6P. 3 Horticulture, 2+2P.	3 Mathematics (Geom. Sol.), 5. 3 English, 5. 3 Spanish or 3 Latin, 5. 23 Mech. Engin. (Woodwork), 6P 2 Mech. Engin. (Drawing), 4P.	3 Mathematics (Geom. Sol.), 5. 3 English, 5. 3 Spanish or 3 Latin, 5. 3 Biology (Botany), 2+6P.	3 Mathematics (Geom. Sol.), 5. 3 English, 5. 3 Spanish or 3 Latin, 5. 3 Biology (Botany), 2+6P.

* The number or letter preceding the subject is the number by which each course is referred to in the College records. The number following each subject indicates the number of hours per week devoted to the subject. P indicates any kind of laboratory or other practice work, two hours of which is accepted as the equivalent of one hour of recitation or lecture work.

NOTICE—Military Tactics is required of all male students of the institution except Juniors, Seniors, and Graduate Students, three hours per week throughout the year. All young women, except juniors, seniors, and graduates, are required to take Physical Culture three days each week throughout the year.

Sophomore Year

AGRICULTURE	MECHANICAL ENGINEERING	DOMESTIC SCIENCE	GENERAL
FIRST TERM			
4 Mathematics (Trig.), 5. 4 English, 5. 1 Chemistry, 3+4 P. 1 Spanish or 1 Latin, 5.	4 Mathematics (Trig.), 5. 4 English, 5. 1 Chemistry, 3+4 P. 25 Mech. Engin. (Pattern Mak.), 10P.	4 Mathematics (Trig.). 5. 4 English, 5. 1 Chemistry, 3+4 P. 4 Spanish or 4 Latin, 5.	4 Mathematics (Trig.), 5. 4 English, 5. 1 Chemistry, 3+4 P. 4 Spanish or 4 Latin, 5.
SECOND TERM			
1 Agronomy (Soils and Crops), 2. 4 Zootechny (Prin. of Breed.), 3. 2 Chemistry, 2+6 P. 2 Spanish or 2 Latin, 5. 1 Surveying, 1+8 P.	5 English, 5. 2 Chemistry, 2+6 P. 8 Mech, Engin. (Desc. Geom.), 5. 1 Surveying, 1+8 P. 3 Mech. Engin. (Draw.). 4 P.	5 English, 5. 2 Chemistry, 2+6 P. 5 Spanish or 5 Latin, 5. 1 Domestic Science (Cooking), 6 P. 1 Domestic Art (Sewing), 4 P.	5 English, 5. 2 Chemistry, 2+6 P. 5 Spanish or 5 Latin, 5. 1 Surveying, 1+8 P.
THIRD TERM			
2 Agronomy (Soils and Crops), 4. 4 Horticulture (Forestry), 2. 3 Spanish or 3 Latin, 5. 5 Horticulture (Olericulture), 2+2 P. 3 Chemistry, 8 P. 4 Biology (Bacteriol.), 2.	6 English, 5. 3 Chemistry, 8 P. 5 Mathematics (High. Alg.), 5. 26 Mech. Engin. (Foundry), 6 P. 4 Mech. Engin. (Mech. Draw.), 4 P.	6 English, 5. 3 Chemistry, 8 P. 6 Spanish or 6 Latin, 5. 4 Biology (Bacteriol.), 2. 2 Domestic Science (Cooking), 2P. 2 Domestic Art (Sewing), 4 P.	6 English, 5. 3 Chemistry, 8 P. 6 Spanish or 6 Latin, 5. 1 Hist. (Med. & Mod.), 5.

Junior Year

AGRICULTURE	MECHANICAL ENGINEERING	DOMESTIC SCIENCE	GENERAL
FIRST TERM			
7 English, 1. 1 Physics. 4+2P. 6 Horticulture (Pomology), 3+2 P. 8 Horticulture (Entomol.), 3. 1 Meteorology, 2. Elective, 5.	7 & 10 English, 3. 1 Physics, 4+2P. 6 Mathematics (Anal. Geom.), 5. 9 Mech. Eng. (Elem. Mech.), 4. 27 Mech. Eng. (Ironwork), 6P. 11 Mech. Engin. (Graphic Statics), 4P.	7 English, 1. 1 Physics, 4+2P. 3 Domestic Art (Millinery), 2P. 1 Astronomy, 5+2P. 3 Domestic Science (Canning, etc.), 6P. Elective, 3.	7 English, 1, 1 Physics, 4+2P. 1 Astronomy, 5+2 P. Elective, 8.
SECOND TERM			
8 English, 1, 1 Soil Physics, 8 P. 1 Political Economy, 4. 5 Zootechny (Feeding), 5. 7 Horticulture (Pomology), 2. Elective, 5.	8 & 11 English, 3. 2 Physics, 4+2P. 7 Mathematics (Calculus), 6. 10 Mech. Engin. (Mechanism), 5. 1 Political Economy, 4. 5 Mech. Engin. (Machine Design), 4P.	8 English, 1. 2 Physics, 4+2P. 1 Political Economy, 4. 4 Domestic Science (Cooking), 8P. Elective, 4.	8 English, 1. 2 Physics, 4+2P. 1 Political Economy, 4. 2 Astronomy, 1+2P. Elective, 8.
THIRD TERM			
9 English, 1. 3 Physics, 4+2 P. 5 Biology (Plant Phys.), 3+2P. 9 Horticulture (Landsc. Gard.), 2. Elective, 9.	9 & 12 English, 3. 3 Physics, 4+2P. 8 Mathematics (Calculus), 5. 6 Mech. Engin. (Machine Design), 4P. 12 Mech Engin. (Steam Boilers and Engines), 5. 28 Mech. Engin. (Machine shop), 6P.	9 English, 1. 3 Physics, 4+2P. 6 Biology (Physiol.), 5. 3 Astronomy, 1+2P. 5 Domestic Science (Invalid Cook.), 6P. 5 Horticulture (Olericulture), 2+2 P. Elective, 2.	9 English, 1. 3 Physics, 4+2P. 6 Biology (Physiol.), 5. 3 Astronomy, 1+2P. Elective, 8.

Senior Year

AGRICULTURE	MECHANICAL ENGINEERING	DOMESTIC SCIENCE	GENERAL
FIRST TERM			
10 English, 2. 4 Chemistry (Agr. Chem.), 3. 3 Agronomy (Rural Engin.), 2+2P. 6 Agrotechny (Dairying), 3+4 P. Elective, 7.	14 Mech. Eng. (Hydraulics), 5. 1 Mineralogy, 10 P. 13 Mech. Engin. (Valve Gears), 2. 29 Mech. Engin. (Mach. Shop), 4 P. 7 Mech. Engin. (Machine Design), 4 P. 15 Mech. Engin. (Applied Mechanics), 5.	10 English, 2. 1 Mineralogy, 10 P. 1 Philosophy (Psychol.). 5. 6 Domestics Science (Dietetics), 2. 5 Domestic Art (Dressmaking), 2 P. Elective, 5.	10 English, 2. 1 Mineralogy, 10 P. 1 Philosophy (Psychol.), 5. Elective, 8.
SECOND TERM			
11 English, 2. 1 Geology, 5. 5 Chemistry (Agr. Chem.), 6 P. 4 Agronomy (Rural Econ.), 3. 10 Horticulture (Plant Breeding), 3. Elective, 4.	16 Mech. Engin. (Applied Mechanics), 5. 1 Geology, 5. 1 Metallurgy, 4. 17 Mech. Engin. (Elect. Engin.), 4. 19 Mech. Engin. (Thermodynamics), 2.	11 English, 2. 1 Geology, 5. 2 History (Hist. Civiliz.), 5. 7 Domestic Science (Home Sanitation), 2. 6 Domestic Art (Dress Making), 2 P. Elective. 5.	11 English, 2. 1 Geology, 5. 2 History (Hist. Civiliz.), 5. Elective, 8.
THIRD TERM			
12 English, 2. 5 Agronomy (Pract. Agr.), 3. 6 Zootechny (Veter. Elem.), 2. 6 Chemistry (Agr. Chem.), 6 P. Thesis, 5. Elective, 5.	20 Mech. Eng. (Eng. Struct.), 5. 18 Mech. Engin. (Elect. Engin.), 5. 21 Mech. Engin. (Engin. Lab.), 6 P. Thesis, 6.	12 English, 2. 8 Domestic Science (Chem. of Foods), 3. 9 Domestic Science (Chafing-dish), 2 P. 7 Domestic Art (Dressmaking), 2 P. Thesis, 5. Elective, 8.	12 English, 2. 2 Geology, 5. Thesis, 5. Elective, 8.

Two Years' Course in Agriculture

FIRST YEAR

FIRST TERM	SECOND TERM	THIRD TERM
English, 4 or 5. Mathematics, 5. 1 Zootechny (Livestock), 2. 1 Horticulture (Greenhouse), 1+2P. A Agronomy (Agriculture), 3. D Mech. Eng. (Carpentry), 6P, or Elective, 4.	English, 4 or 5. Mathematics, 5. 2 Zootechny (Livestock), 2+2P. Horticulture (Greenhouse), 1+2P. C Mech. Eng. (Carpentry), 6P, or Elective, 6,	English, 4 or 5. A Chemistry (Elementary), 4. 3 Zootechny (Livestock), 2. 3 Horticulture, 2+2P. A Biology (Botany), 4. Elective, 3.

SECOND YEAR

FIRST TERM	SECOND TERM	THIRD TERM
English, 5. Commercial Arithmetic, 5. 6 Horticulture (Pomology), 3+2P. Chemistry (Agricultural), 3+4P.	English, 5. Bookkeeping, 5. 7 Horticulture (Pomology), 2. 1 Agronomy (Soils and Crops), 2. 4 Zootechny (Principles of Breeding), 3. 1 Soil Physics, 8P.	English, 5. Bookkeeping, 5. 5 Horticulture (Olericulture), 2+2P. 2 Agronomy (Soils and Crops), 4. Elective, 3.

Two Years' Course in Practical Machanics

FIRST YEAR

FIRST TERM	SECOND TERM	THIRD TERM
Geom. Drawing, 3P. Free Hand Drawing, 2 P. English, 4 or 5. Mathematics, 4 or 5. Woodturning, 10 P. Elective, 4 or 5.	Free Hand Drawing, 2 P. Geometrical Drawing, 3 P. Forging, 10 P. English, 4 or 5. Mathematics, 4 or 5. Elective, 4 or 5.	Free Hand Drawing, 2 P. Mechanical Drawing, 3 P. Carpentry, 10 P. English, 4 or 5. Mathematics, 4 or 5. Elective, 4 or 5.

SECOND YEAR

FIRST TERM	SECOND TERM	THIRD TERM
One of: Carpentry, 10 P. Bench Work in Iron, 10 P. Pattern Making, 10 P. Machine Work, 10 P. Drawing, 4 P. English, 4 or 5. Mathematics, 4 or 5. Elective, 4 or 5.	One of: Carpentry, 10 P. Forging, 10 P. Pattern Making, 10 P. Drawing, 4 P. English, 4 or 5. Mathematics, 4 or 5. Elective, 3	One of: Carpentry, 10 P. Pattern Making, 10 P. Foundry Practice, 10 P. Machine Work, 10 P. Drawing, 4 P. English, 4 or 5. Mathematics, 4 or 5. Elective, 5.

A Course in English Stenography

FIRST TERM	SECOND TERM	THIRD TERM
1 Stenography, 10.	2 Stenography, 10.	3 Stenography, 10.
1 Typewriting, 5.	2 Typewriting, 5.	3 Typewriting, 5.
1 English, 5.	2 English, 5.	Office Practice, 5.

A Course in Spanish Stenography

FIRST TERM	SECOND TERM	THIRD TERM
4 English, 5.	5 English, 5.	6 English, 5.
Special Work, 4.	7 Spanish Stenog., 5.	8 Spanish Stenog., 5.
4 Adv. Stenography, 5.	5 Adv. Stenography, 5.	6 Adv. Stenog , 5.
7 Spanish, 5.	8 Spanish, 5.	9 Spanish, 5.
4 Typewriting, 5.	5 Typewriting, 5.	6 Typewriting, 5.

Elective

FIRST TERM	SECOND TERM	THIRD TERM
Adv. Chemistry, 6 P.	Adv. Chemistry, 6 P.	Adv. Chemistry, 6 P.
Adv. Physics, 6 P.	Adv. Physics, 6 P.	Adv. Physics, 6 P.
Adv. Botany, 6 P.	Adv. Botany, 6 P.	Adv. Botany, 6 P.
Adv. Soil Physics, 6 P.	Adv. Soil Physics, 6 P.	Adv. Soil Physics, 6 P.
Adv. Zoology, 6 P.	Adv. Zoology. 6 P.	Adv. Zoology, 6 P.
Domestic Science, 4 P.	Domestic Science, 4 P.	Domestic Science, 4 P.
Commercial Spanish, 5.	Commercial Spanish, 5.	Commercial Spanish, 5.
Agronomy, 6 P.	Bookkeeping, 5.	Bookkeeping, 5.
Zootechny, 6 P.	Agronomy, 6 P.	Agronomy, 6 P.
Agrotechny, 6 P.	Zootechny, 6 P.	Zootechny. 6 P.
Horticulture, 6 P.	Agrotechny, 6 P.	Agrotechny, 6 P.
Commercial Arithmetic, 5.	Horticulture, 6 P.	Horticulture, 6 P.
Music, 5 P.	Music, 5 P.	Music, 5 P.
13 English.	14 English.	15 English.
Art Needlework.		

* NOTE ON ELECTIVE STUDIES.—The figures following the Elective Studies indicate the minimum amount of time that may be devoted to them. Whenever the other work of the student and of the instructor do not prevent, a greater amount of time may be given to the subject.

The Elective Studies are not assigned to any particular year but may be taken whenever the student may be prepared for them and has the necessary time at his disposal, subject always to the approval of the faculty.

In addition to the courses expressly designated as Elective Studies, any study pursued in the College, and not prescribed in the course of study that is being followed by the student in question may be elected by him. A student in the General Course, for example, may elect a study prescribed for Agricultural students; or to give a more specific example, a Senior in the Agricultural Course (who has five hours free for an elective in the third term) may elect Physiology, which is given in the Junior year of the General Course, provided it is given at an hour when he is free from other engagements.

Senior Preparatory Year

FIRST TERM	SECOND TERM	THIRD TERM
C English, 4. C Mathematics (Algebra), 5. B History (Grecian, etc.), 4. A Agronomy (Elementary), 3 or, B Horticulture (Floriculture), 2+2 P. B Mech. Engin. (Drawing), 2 P. and D Mechan. Engin. (Carpentry), 6 P. or D Domestic Science, 4 P. and C Domestic Art, 4 P.	B English, 4. B Mathematics (Algebra), 5. A History (English), 4. A Horticulture (Elementary), 2+2 P. A Mech. Engin. (Drawing), 2 P. and C Mech. Engin. (Carpentry), 6 P. or C Domestic Science, 4 P. and B Domestic Art, 4 P.	A English, 4. A Mathematics (Algebra), 5. A Chemistry, 4. A Biology (Botany), 4. A Zootechny (Livestock), 2+2 P. or A Domestic Science, 1 and B Domestic Science, 2 P. and A Domestic Art, 2 P.

† NOTE.—The Senior Preparatory Classes are taught by the College instructors, not by the teachers of the Preparatory Department, and the students are under the immediate jurisdiction of the College Faculty, instead of under that of the principal of the Preparatory Department.

THE ELECTIVE SYSTEM

By consulting the courses of study offered by this institution (pp. 15 to 20) it will be seen that there are four courses outlined, three of which are of a more or less specialized character. Each of these latter is designed to fit the student for some special line of work, which he has decided to follow before entering the course. Besides their strictly technical subjects, they contain all those general educational and cultural subjects that are considered to be of most value to technical students, and which it was possible to introduce into these courses. This arrangement allows very little selection of work upon the part of the student, except that made when entering his particular course. Mechanical engineers have no choice of work. Agricultural men may elect a second year of language and a small number of other cultural subjects or more technical work, if they so desire. The domestic science course allows a certain amount of election which may be turned either to cultural work or to further technical work in that department.

The general course, however, is designed to include, as required work, all of those subjects which are necessary in any general course, and at the same time allow the student to select a large proportion of his work. The facilities offered and the time allowed are so arranged that a student may specialize in language (Spanish, Latin, or English), literature (English or American), chemistry, physics, or biology, or may take technical training in agriculture, horticulture, mechanical engineering, or domestic science. With this arrangement a student, by entering the general course, may take any special course of his own choosing, which the institution is able to furnish.

Special Courses

Students of mature years, who cannot remain long enough to take a full course, may be allowed to take special courses. The faculty reserves the right to refuse such requests, or to order such modifications as may seem best for the student and the college. No degrees are granted for special work, but those who perform such work in a satisfactory manner will receive certificates.

Degrees

The degree of *Bachelor of Science* (B. S.) is conferred upon students who satisfactorily complete the work prescribed in any of the collegiate courses of study, but in order to recieve the B. S. degree students are required to spend at least one year immediately before graduation in this institution.

The degree of *Master of Science* (M. S.) is conferred upon students of this institution who, after taking the degree of B. S., pursue for at least one year in residence, or for two years as non-resident students, a course of study approved by the faculty, pass an examination upon the same, and present a satisfactory thesis. Students of other institutions of similar character and equal rank, holding the bachelor's degree and desiring to take the M. S. degree from this institution, are subject to the same requirements as above, except that they must spend the year next preceding the granting of the degree in resident study.

Regarding graduate courses of study, the following rules must be observed:

1. The course shall consist of work equivalent to twenty

lecture hours per week, and shall be distributed between one major and two minors.

2. The major, covering ten hours, shall be advanced work not offered to undergraduates, in line with the candidate's principal work leading to the B. S. degree, and at least half of it shall be devoted to research whose results shall be embodied in a thesis.

3. The minors, covering ten hours, may be chosen from lines distinct from that of the major, and may include work offered to undergraduates of the Junior and Senior years.

4. The candidate must pass a satisfactory examination upon his work and present his thesis for final approval before the beginning of the Senior vacation.

In bachelors' diplomas, the course completed by the student may, at his option, be indicated parenthetically.

In masters' diplomas, at the discretion of the faculty, the degrees of M. S. A. (Master of Scientific Agriculture) and M. E. (Mechanical Engineer) may be substituted for M. S. in the case of students of Agriculture and Mechanical Engineering.

DEPARTMENTS OF INSTRUCTION

AGRICULTURE

PROFESSOR VERNON
MR. SCOTT
MR. HARTENBOWER

The course in agriculture is designed to combine, in their proper proportions, that amount of theoretical study with practical training illustrative of the theory learned, which will produce a well rounded, practical, resourceful man. To this end the course is strong in those sciences, botany and chemistry in their various branches, which form important aids to applied agriculture. A certain number of other subjects of educational and practical value are included, notably the study of the Spanish language, proficiency in which opens a new field for the scientist among Spanish speaking peoples. To all this is added a large amount of practical work under competent instruction and with a modern equipment. A certain amount of choice is allowed in the selection of the studies of the last two years. The instruction is given by text books, lectures, laboratory practice, and field observation.

This course fits young men for the various agricultural pursuits; farming, stock raising, and dairying. It also prepares them for professorships of Agriculture and Animal Husbandry in agricultural colleges, as well as for scientific aids in the United States Department of Agriculture. The demand for trained men in these latter positions has been so great, that, in recent years, almost all agricultural graduates have been called into college or experiment station work.

Agronomy, or Plant Culture

A. *Elementary Agriculture.* Introductory principles. The work is general and of a popular nature. Principles of

Agriculture by Bailey is used as a text, supplemented by lectures.

Required of all Senior Preparatory men, first term, 3 hours.

1, 2. *Soils and Field Crops.* Preparation of the soil, plant growth, selection of seed, germination under irrigation systems, cultivation, harvesting, storage, marketing.

Hunt's Cereals in America, Morrow and Hunt's Soils and Crops of the Farm, and Roberts' The Fertility of the Land form the basis for the work.

Required of Agricultural Sophomores, second term, 2 hours, and third term, 4 hours. Credit 72 hours.

3. *Rural Engineering.* Planning ditch systems; application of water to land; economic use of fields and crops, buildings, and machinery.

Required of Agricultural Seniors, first term, 2 hours plus 2 hours practice. Credit 36 hours.

4. *Rural Economics.* History of Agriculture, farm management, and rural law.

Required of Agricultural Seniors, second term, 3 hours. Credit 36 hours.

5. *Practical Agriculture.* Scientific and practical problems in general agriculture as applied to the farm and ranch. Special effort is made to apply the principles discussed to New Mexico agriculture.

Required of Agricultural Seniors, third term, 3 hours. Credit 36 hours.

Zootechny, or Animal Industry

This course aims to meet the growing needs of the Territory, inasmuch as stock raising is one of the leading industries. This subject is pursued from a practical and scientific standpoint, having in view the thorough equipment of young men for successful work in breeding, care, and management of large herds.

A. *Live Stock and Score-card.* Breeds of animals; cattle, horses, sheep, goats, and swine. A preliminary study with score-card practice.

Required of all male Senior Preparatory students, third term, 2 hours plus 2 hours practice.

1, 2, 3. *Live Stock.* This course includes a study of the history, development, characteristics, selection, care and management, points of utility, etc., of the different breeds of cattle, horses, sheep, goats, and swine. Special attention is given to a discussion of breeds best adapted to New Mexico conditions. The subject matter of the text is supplemented by lectures. Throughout the course in live stock practical demonstration of the various points under discussion is made with individual animals of the college herd; also, occasional trips will be planned having in mind a study of the breeds, methods of handling, and local conditions of the various herds in this section.

Score-card practice is coincident with the study of breeds. Animals are brought before the class for demonstration and scoring. Lovelocke's American Standard of Excellence, and other recognized standards will be followed in judging cattle, sheep, and swine.

The object of the study is to insure a familiarity with the characteristics of the leading breeds, so that students are enabled to become competent judges of live stock. This work is specially valuable for young men who expect in any way to deal with the live stock interests of the territory.

Required of Agricultural Freshmen, 2 hours first term, 2 hours plus 2 hours practice second term, and 2 hours third term. Credit 84 hours.

4. *Principles of Animal Breeding.* This course covers the laws governing the breeding of animals, and includes the principles of heredity, laws of correlation and variation, in-and-in and cross-breeding, parentage, form types, and pedigree. Attention is given to the subject of breeding for beef and for the dairy.

Required of Agricultural Sophomores, second term, 3 hours. Credit 36 hours.

5. *Stock Feeding.* This subject includes animal nutrition, methods of feeding, nutritive ratios, making rations, and a careful inquiry into the nutritive value of stock feeds available on the ranches and markets of New Mexico.

Required of Agricultural Juniors, second term, 5 hours. Credit 60 hours.

6. *Veterinary Elements.* A study of the diseases most common among domestic animals and methods of their prevention and cure.

Required of Agricultural Seniors, third term, 2 hours. Credit 24 hours.

Agrotechny

1. *Dairying.* The course in dairying comprises a study of the properties of milk and methods of handling milk and its products in the private dairy and thoroughly equipped creamery. Receiving and weighing, testing, separating, ripening cream, churning, pasteurizing, and marketing are subjects discussed in the class room. Instruction is also given in the principles of the Cheddar system of making cheese.

Required of Agricultural Seniors, first term, 3 hours plus 4 hours practice. Credit 60 hours.

Equipment

The farm connected with the college contains about one hundred and seventy acres of land under irrigation, which is divided into fields and plots for use in demonstrating the class room work. Grasses, cereals, roots, forage, and other farm crops are grown for demonstration and study. The feeds raised on the farm are utilized in feeding experiments and for maintaining stock used in illustrating the principles taught. The Hereford, Shorthorn, Jersey, and Guernsey breeds of cattle are represented in the college herd, affording opportunity for the student to become familiar with thoroughbred and grade stock. A large corral has been completed, which furnishes commodious quarters for the stock and for the storage of feeds and machinery.

The department is well equipped with the latest improved machinery. This equipment consists of a gasoline engine, feed-grinder, fodder-shredder and cutter, mowers, harvesting machinery, thresher, bailer, plows, discs, cultivators, drills, seeders, corn planter, bordering machine, weeders, scrapers for leveling, and other modern machinery. Special effort is made to maintain this feature of the equipment at its best in order to furnish facility for studying machinery used in this as well as other sections of the country, thus broadening the students' range of observation and thought.

Pumping plants have been installed which will give opportunity for studying the possibilities in pumping for irrigation. One of the pumping plants consists of a twelve-inch well, upon which is placed a Fairbanks, Morse & Co's. six-inch centrifugal pump. This pump is operated by a Fairbanks, Morse & Co's 22 H. P. gasoline engine having an attachment for using crude oil and kerosene. The other pumping plant consists of a twelve-inch well, upon which is placed a Van Wie six-inch centrifugal pump. This pump is operated by a 30 H. P. Erie steam engine. In connection with the experimental work in pumping for irrigation other equipment, such as weirs, adjustable spill-gates, various kinds of measuring apparatus, etc., are available for study

Constant additions are being made to the equipment in all the lines of work. The experimental work of the Experiment Station, carried on by this department, may be made an excellent adjunct to the instruction given in class, affording as it does opportunity for the student to follow his particular bent, whether he be interested in dairying, feeding steers or sheep for market, studies in field crops or grasses, irrigation from the river or from wells, or any or all of these lines in general, in order to give breadth and depth to his powers in thinking out practical problems in agriculture.

Student Labor. In connection with the investigations of the Department there are may opportunities which will enable industrious students to use a certain amount of their time in practical work. This labor is paid for at the rate of from 7½ cents to 20 cents per hour. Naturally, work of this nature can be made an important aid to those who desire to pay part of their expenses while in college.

Short Course in Agriculture and Horticulture

While we advise those who expect to become professors or instructors in agricultural schools and colleges as well as those who wish to attain eminence in any of the various lines of agriculture to take the four years' course in agriculture, yet we realize that there are many who for various reasons are unable to do this.

Owing to the increasing demand for agricultural training by young men who come from the farm and ranch, and believing that a territorial institution should offer every possible encouragement to those who desire to fit themselves for their chosen lines of work, a two years' course in agriculture and horticulture has been arranged.

Two Years' Course in Agriculture and Horticulture

In order to be admitted to this course students must be at least sixteen years old and possess a good knowledge of Arithmetic, Reading, Spelling, United States History, Grammar and Composition. While it is desirable to follow closely the course as outlined yet considerable lenience is permitted in the substitution of other subjects.

HORTICULTURE

PROFESSOR GARCÍA

The endeavor in teaching this subject is to acquaint the students with the theoretical and practical phases of Horticulture, having in view the thorough training of young men for successful work in horticultural pursuits, such as fruit growing, nursery business, floriculture, market gardening, and viticulture. The instruction is given in text-books and lectures, supplemented by outside reading, laboratory practice, and field observations.

B. *Floriculture.* While the work in floriculture is designed to be of a popular and practical nature, yet a few of the more general principles upon which successful floriculture is based will be taught. The student is expected to become acquainted with common floricultural operations, such as making cuttings, mixing soils, potting, repotting, watering, germination of seed, arrangement of flowers in bouquets, etc.

Required of all Senior Preparatory women, first term, 2 hours plus 2 hours practice.

A. *Elementary Horticulture.* Introductory principles. The work will necessarily be elementary in nature yet sufficiently comprehensive to be of practical use, as well as to form a basis for advanced work for those who wish to pursue the subject further. The laboratory work is so arranged as to consist of operations most likely to be useful to the student after leaving college. The student will learn how to start new plants and ornamental shrubs, graft, bud, and top work; plant, prune, irrigate, etc.

Required of all Senior Preparatory students, second term, 2 hours plus 2 hours practice.

1. *Greenhouse Methods.* Work in the greenhouse, with hotbeds, and with cold frames occupies an important place among horticultural subjects. Winter grown flowers and vegetables are attracting more attention each year. Varie-

ties of flowers and vegetables adapted to this line of work are studied, and due attention is given to methods of growing them for home supply and for market.

Required of Agricultural Freshmen, first term, 1 hour plus 2 hours practice. Credit 24 hours.

2. *Greenhouse Methods.* Continuation of Horticulture 1. Hot-beds and their uses; cold frames, their limitations and adaptations in this region are topics considered.

Required of Agricultural Freshmen, second term, 1 hour plus 2 hours practice. Credit 24 hours.

3. *Horticulture.* The whole field of propagation is covered under this heading, and includes propagation by seed, separation and division, layering, cuttings, budding, grafting, etc. General nursery management is made a strong feature of the work, and the student is familiarized with nurserymen's methods. The practice in this course affords students opportunity to propagate plants and trees by all the different methods studied in class. This course is an essential to all future horticultural work and forms the foundation for general fruit culture. The Nursery Book by Bailey is the text used, supplemented by outside reading.

Required of Agricultural Freshmen, third term, 2 hours plus 2 hours practice. Credit 36 hours.

4. *Forestry.* This includes the study of wind-breaks, utitity of forest plantations, and the general influence of forests on the climate and water courses. The subject of forest reserves and forest-tree planting will also receive careful attention.

Required of Agricultural Sophomores, third term, 2 hours. Credit 24 hours.

5. *Olericulture.* General principles underlying vegetable culture; practical work in planning and laying out vegetable gardens; preparing seed beds, planting, transplanting, cultivation, irrigation, and preparing vegetables for market. Bailey's Principles of Vegetable Growing is used as a text.

Required of Agricultural Sophomores and Domestic Science Juniors, third term, 2 hours plus 2 hours practice. Credit 36 hours.

6, 7. *Pomology.* The work in pomology includes all the subjects relating to fruit culture; evolution, classification, judging, and description of fruits; location and climate, windbreaks; tools and tillage, plans and planting; diseases and insects; thinning, pruning, spraying, irrigating, picking, packing, and marketing are among the subjects presented. The extensive orchards and vineyards on the college farms and several commercial orchards and vineyards in the vicinity afford unusual means of illustration, and students become acquainted with varieties which are adapted to this section. Bailey's Principles of Fruit Growing and Waugh's Systematic Pomology are the texts used.

Required of Agricultural Juniors, first term, 3 hours plus 2 hours practice, second term, 2 hours. Credit 60 hours.

8. *Economic Entomology.* This course is designed to give students a fair knowledge of the principal groups of insects of economic importance, especial attention being given to the study of injurious insects and the means of destroying them.

Required of Agricultural Juniors, first term, 3 hours. Credit 36 hours.

9. *Landscape Gardening.* A study of systems of landscape gardening, comprising such subject matter as laying out and planting residence grounds, railroad, hotel, and public parks; location and setting of houses and other buildings; avenues, drives, walks; trees, shrubs, flowers, lawns; beds and borders; grouping, variation, and color effects; and the general principles involved in the arrangement and planting of home grounds and farm for beauty, comfort, and utility.

Required of Agricultural Juniors, third term, 2 hours. Credit 24 hours.

10. *Plant Breeding.* The student having completed his biological studies is prepared for a discussion of plant breeding and the evolution of cultivated plants. Selection, crossing, variation, and the influence of environment, food, etc., are investigated.

Required of Agricultural Seniors, second term, 3 hours. Credit 36 hours.

Equipment

The department library contains a number of books of reference on all the subjects of Horticulture, including the Cyclopedia of American Horticulture, Pruning Book, Evolution of Our Native Plants, and many monographs on the different orchard fruits, vegetables, and flowers.

The equipment of horticultural tools is quite complete. In addition to a number of different styles of orchard and garden cultivators, the department has a good supply of the different kinds of pruning knives, shears, and saws, as well as trowels and dibbers. There are four kinds of sprayers, a knapsack, a barrel force pump, a kerowater pump, used for spraying trees with a mechanical mixture of water and kerosene, and a large Wallace power sprayer. All of these are used in the laboratory work and student wishing to make a special study of any of these implements and sprayers is at liberty to do so.

The experimental orchards and vineyards contain many varieties of fruit.

The vegetable gardens, greenhouse, and cold frames, afford excellent opportunity for study and experiment. The arboretum, forestry plantations, and lawns give enlarged facilities for observation and study. There is also a fair collection of fruits preserved in formalin to which the student has free access for studying varieties.

Constant additions are being made to the equipment. The experimental work of the Experiment Station, carried on by this department may be made an excellent adjunct to the instruction given in class, affording as it does opportunity for the student to become acquainted with the different lines of horticultural investigations.

The department has secured a 23-acre farm to be used for experiment purposes. Most of the old horticultural grounds have been turned over to the College.

BIOLOGY AND GEOLOGY

PROFESSOR WOOTON

Biology

The required course in biology is only elementary and general in character, and designed to present the general principles of the subject to the student and at the same time introduce him to a limited number of types of the various larger classes of animals and plants. For this work the lecture and laboratory method is used.

A. *Botany.* A general treatment of the flowering plants, their structures, functions of parts, simpler classfication, distribution, and economic uses. Bergen's Elements of Botany is the text-book used.

Required of all Senior Preparatory students, third term, 4 hours.

1. *Zoology.* Fundamental principles of life; elementary study of the cell, its parts and functions; introductory treatment of the effects of variation, heredity, environment, and use; types studied are invertebrate animals, most of the time being devoted to the gross anatomy and comparative morphology. Text-book; Animals, by Jordan, Kellog, and Heath. This text is used the next term also. Laboratory manual, Pratt's Invertebrate Zoology.

Required of all regular Freshmen (except Mechanical Engineers), first term, 2 hours plus 6 hours practice. Credit 60 hours.

2. *Zoology.* Continuation of the study of animal life. Types examined are the higher invertebrates and vertebrates. Various laboratory manuals are used in the laboratory work, while Parker and Haswell's Text Book is the most important reference book.

Requirements and credit same as in Biology 1, second term.

3. *Botany.* The comparative morphology of plants; studied by means of representative types of the larger classes. The phylogenetic development of the plant kingdom is set forth as clearly as the time will allow. Text Book, Coulter's Plant Structures.

Requirements and credit same as in Biology 1, third term.

4. *Bacteriology.* Lectures and demonstration work on bacteria of water, air, soil, and foods, and those causing fermentation and disease; Sternberg, Muir and Ritchie, Duckwall, Conn, and Newman's books are used for reference.

Required of Agricultural and Domestic Science Sophomores, third term, 2 hours. Credit 24 hours.

5. *Plant Physiology.* Lectures and laboratory practice on relations of plants to their environmental stimuli; composition of the plant body, its changes, constructive and destructive. Sachs, Detmer, MacDougal, and Ganong are used for reference.

Required of Agricultural Juniors, third term, 4 hours, or equivalent in practice. Credit 48 hours.

6. *Human Physiology.* Lectures, demonstrations, and recitations on the anatomy, histology, and physiology of the human body. Text book, Martin's Human Body, Advanced Course.

Required of Juniors of the General and Domestic Science courses, third term, 5 hours. Credit 60 hours.

Elective Courses are offered by this department in either zoology or botany, the particular branch of either subject being largely at the option of the student. Special facilities for the study of the flowering plants of New Mexico are to be obtained at this institution. All students electing work in this department must have completed Biology 1, 2, and 3. Minimum, 6 hours of practice; credit 36 hours; more time in proportion. All such electives will be accepted as minors for graduate work. Students doing major graduate work in this department must have done one year of elective work in some biological subject besides Biology 1, 2, and 3, and for that major must do not less than ten hours per week for one year. Arrangements for all elective and graduate work must be made with the head of the department.

Equipment

This department occupies three rooms on the upper floor of the Science Hall. One room is used solely as a laboratory for biology and physiology. It is equipped with gas, water, tables, cases, dissecting and compound microscopes, microtomes, necessary instruments and materials, charts, casts, bacteriological incubator, ovens, and a general assortment of apparatus, glassware, and reagents for all kinds of biological work. A second room is used as the herbarium. In it are the college herbarium of about 12,000 sheets and the private herbarium of the head of the department, about 6,000 sheets. These two herbaria contain representatives of perhaps 85 per cent. of the species of flowering plants and ferns of the Territory of New Mexico. There are also about 1,000 specimens of fungi and algæ represented, the greater portion of these being named fungi of economic importance. The herbarium has abundant case and table room. The third room is used as an office for the department, and contains the departmental library of about 400 volumes.

Geology

The work in this subject is taught by lectures and recitations with prescribed text-book reading. Occasional field work is arranged for as often as facilities will permit.

1. *Dynamical Geology.* Includes dynamical, structural, and physiographic geology, some considerable stress being laid upon rocks, rock-making minerals, and their derivative soils. Chamberlin and Salisbury's geology Vol. I, is used as text-book.

Required of all Seniors, second term, 5 hours. Credit 60 hours.

2. *Historical Geology.* A detailed treatment of the geological history of the earth together with some elementary work in paleontology.

Required of General Course Seniors, third term, 5 hours. Elective to students who have taken Biology 1, 2, and 3 and Geology 1. Credit 60 hours.

Equipment

The department of geology occupies one room on the second floor of the Science Hall, and has at its disposal a collection of the common minerals, the U. S. Geological Survey collection of rocks, a Bausch and Lomb petrographic microscope, a number of fossils, and a departmental library.

PHYSICS

PROFESSOR TINSLEY

Physics

The course in General Physics is designed to present a general survey of the subject and acquaint the students with the fundamental conceptions of matter and energy, their laws, and the practical application of these to the problems of engineering, agriculture, etc. The method of instruction is by recitations, lectures, demonstrations, and laboratory practice.

A. Introductory principles of the subject.

Required of all Junior Preparatory students, first half year, 5 hours.

1. The properties of matter, mechanics of solids and liquids.

Required of all regular Juniors, first term, 4 hours plus 2 hours practice. Credit 60 hours.

2. Study of sound and light.

Required of all Juniors (except Agricultural students), 4 hours plus 2 hours practice, second term. Credit 60 hours.

3. Study of heat, electricity, and magnetism.

Requirements and credit as in Physics 1, third term.

4, 5, 6. Advanced work, principally experimental, adapted to the needs of the student. Elective for students who have completed Physics 1, 2, and 3, and a minor for graduate students.

3 hours recitation or 6 hours practice required as a minimum. Credit for 3 hours is 36 hours, additional time in proportion.

Soil Physics

This course is designed to meet the increasing demand among agriculturists for a more intimate and extensive acquaintance with the soil. It also fits students to become specialists in soil work. In this line the demand for trained men now exceeds the supply for the various soil surveys which are being undertaken by the state and national governments.

1. A brief survey of the origin and physical characters of soils by lectures and recitations; with laboratory and field practice in soil sampling, determinations of moisture, salt content, water holding power, mechanical analyses, classification, and mapping.

Required of Agricultural Juniors, and elective for other students, second term, 8 hours practice. Credit 48 hours.

2, 3, 4. Advanced work on soils. Elective for those who have completed Soil Physics 1, and as a minor for graduate students.

Minimum 6 hours practice. Credit for minimum 36 hours.

5, 6, 7. Advanced work on soils. Offered as a major for graduate students who, wishing to specialize in this line, have completed Soil Physics 1, 2, 3, and 4.

Time required, equivalent of 10 lecture hours per week. Credit 120 hours.

Meteorology

1. Lectures and recitations with accompanying laboratory practice. A study of the common meteorological instruments, their construction and uses, and those meteorological phenomena having most direct bearing on the agriculture of New Mexico.

Required of Agricultural Juniors and elective for other students, first term, 2 hours. Credit 24 hours.

Equipment

This department occupies two rooms on the second floor of the Science Hall.

The physical laboratory is a large room (50x20 ft.) on the south side of the building, well adapted to physics work. It has in it a dark room, supplied with gas and water, for photometric and photographic work, wall cases for the storage of apparatus, lecture table, and wall desks for student work.

The room devoted to soil work is well fitted with work desks, tables, and shelving, and is supplied with gas and water.

The physical laboratory is quite well supplied with apparatus for the usual class demonstrations and practice. In addition there are a number of pieces of finer apparatus for advanced work; e. g. Atwood's machine, balances, barometer, thermometers, including one of Green's standards, spectrometer, polariscope, stereopticon, photographic outfit, Rowland D'Arsonval and tangent galvanometers, resistance box, standard cell, and Wheatstone bridge.

The soil physics laboratory is especially well equipped, this being one of the prominent lines of investigation of the Agricultural Experiment Station. The equipment includes electrical apparatus for the determination of "alkali" in soils and waters, electrical soil hygrometers and accessories, soil samplers, drying ovens, balances and weights, shaker, water motor and centrifuge for mechanical analyses of soils, and the necessary glass and platinum ware and reagents for carrying on investigations of the physical properties of soils and their salt content.

There is also a current meter and register for use in water measurements.

For the work in meteorology, in addition to an evaporation tank and anemometer, there are the usual instruments furnished by the U. S. Weather Bureau to voluntary observers.

CHEMISTRY, MINERALOGY, METALLURGY, AND ASSAYING

PROFESSOR HARE

MR. MITCHELL

This department offers exceptional facilities for work in these lines. The work required of all students in the Sophomore class is a course in the fundamental principles of general chemistry, the subject being presented by lectures and recitations with demonstrations in the class-room and applications of the principles by each student in the laboratory.

Students in the Agricultural Course are required to do an extra year of work in the chemistry of agricultural products, soils, waters, etc.

In Assaying, a year's course is offered to those who wish to become practical assayers, instruction being given in both wet and dry methods in common use.

The instruction in Mineralogy is by both descriptive and determinative methods, while in Metallurgy lectures and recitations, with occasional visits to mines and smelters in this vicinity, constitute the plan followed. One term in the elements of chemistry is required of all students in the Senior Preparatory year.

Elective courses are offered, during the second year in chemistry, in the different branches of advanced work.

A. *Elementary Chemistry.* The study of the subject as outlined in an elementary text-book, supplemented by frequent experiments performed before the class. The chemistry of this term is intended as a preparation for the different branches of science taught later.

Required of all Senior Preparatory students, third term, 4 hours.

1. *General Chemistry.* A study of principles of general

chemistry by means of lectures and demonstrations, supplemented with laboratory practice.

Required of all Sophomore and Assaying students, first term, 3 hours plus 4 hours practice. Credit 60 hours.

2. *General Chemistry.* Continuation of the previous term's work.

Required of all Sophomore and Assaying students, second term, 2 hours plus 6 hours practice. Credit 60 hours.

3. *Qualitative Analysis.* The work this term is entirely in the laboratory. Upon the completion of this term's work students are expected to be able to analyze various compounds.

Required of all Sophomore and Assaying students, third term, 8 hours practice. Credit 48 hours.

4. *Agricultural Chemistry.* The work consists of a text book study of such subjects as animal nutrition, plant food, and fertilizers, as presented in Snyder's "Chemistry of Soils and Fertilizers" and "Chemistry of Plant and Animal Life."

Required of Agricultural Seniors, first term, 3 hours. Credit 36 hours.

5, 6. *Agricultural Chemistry.* Laboratory work in the analysis of agricultural products, waters, soils, etc.

Required of Agricultural Seniors, second and third terms, 6 hours practice. Credit 72 hours.

7. *Quantitative Analysis.* Laboratory practice in general quantitative analysis. During the term students receive instruction in the use of the balance and in general quantitative manipulation. Each student is required to make some of the fundamental quantitave determinations, thus becoming familiar with quantitative processes by actual practice.

Elective for all students who have completed Chemistry 1, 2, and 3, first term, 6 hours practice. Credit 36 hours.

7. *Advanced Chemistry.* The nature of the work done during this term is left largely to the choice of the student; but, in general, usually consists of laboratory work along some line of original investigation. The work, especially during

the latter half of the term, should be along the line leading to the thesis work to be taken up the next term.

Elective for all students who have completed Chemistry 7, second term, minimum time 6 hours practice. Credit 36 hours for minimum time; more in proportion.

9. *Thesis.* Students who elect chemistry for their thesis work, are required to take up some line of original investigation and prepare a paper on the same. The work is principally in the laboratory, supplemented by a course of outside reading. While but one term is required for thesis work it is much better to select the subject in the second term and devote a considerable portion of that term to the work.

Required of all Seniors who choose a chemical thesis, third term, 10 hours practice as a minimum.

10, 11, 12. *Graduate Work.* Advanced work in chemistry, leading to the degree of M. S., is offered to graduate students. The character of the work selected is left largely to the choice of the student, subject to the approval of the head of the department. The work taken up, however, must consist largely of original research along some line of chemical investigation. It practically amounts to a continuation of work of the same character as the thesis work of the Senior year, although the subject may be different.

The minimum time requirement for this work as a major is 10 hours practice per week throughout one year.

1. *Mineralogy.* A laboratory study of the more important minerals, special attention being given to the ores and other minerals of commercial value. The more important rock-making minerals are studied as completely as the time devoted to the subject will permit. Dana's System of Mineralogy and other standard works are used as reference books.

Required of all (except Agricultural) Seniors and Assaying students, first term, 10 hours practice. Credit 60 hours.

1. *Metallurgy.* The work is presented in the form of lectures and recitations, using Hiorn's Text-book of Elementary

Metallurgy, with a course of supplementary required reading.

Required of all Senior Mechanical Engineers and Assaying students, second term, 4 hours. Credit 48 hours.

1. *Assaying, Dry Methods.* For the accommodation of those of our students who desire to elect the subject of assaying, instruction is given in the fire assay of gold, silver, and lead ores. Each student is assigned furnaces, and is supplied with the necessary crucibles, scorifers, material for making fluxes, etc. Besides other necessary apparatus, he also has the use of the balances for weighing out charges, mixing fluxes, and weighing gold and silver beads.

Required of all Assaying students, and elective for others who have completed Chemistry 1, 2, and 3, first term, minimum time 6 hours. Credit 72 hours.

2. *Assaying, Wet Methods.* The study of the quantitative determination of copper, lime, silica, etc., by the best volumetric and gravimetric methods.

Required of all Assaying students, and elective for others who have completed Assaying 1, second term, minimum time 6 hours. Credit 72 hours.

3. *Assaying, Research Work.* The work relates chiefly to the composition and metallurgy of ores. Students are encouraged to make original studies of methods for the extraction of metals from their ores, in order to determine which are most applicable and economical in particular cases.

Required of all Assaying students, and elective for others who have completed Assaying 2, third term, minimum time, 6 hours. Credit 72 hours.

The work in assaying is principally in the laboratory, but is supplemented by a course of reading in standard books on assaying, analytical chemistry, etc.

The time required during the year, of students taking assaying, is six hours or equivalent practice per week. It will usually be possible, however, to arrange for extra work; and students are strongly urged to do so when possible, as the amount of knowledge gained in this subject depends largely upon the time devoted to it in the laboratory.

Students taking assaying are also required to take the regular work in chemistry, geology, mineralogy, and metallurgy.

Students will not be admitted to the course in assaying, unless they have had sufficient preliminary training to enable them to carry the work.

Equipment.

The chemical department occupies all of the lower floor of the Science Hall with the exception of one room. The college work and the station work have separate quarters. Six good sized rooms and a smaller store room are used in the instruction of students, and two rooms and a store room, for the station work. A small brick building, stationed at a safe distance from the main building, is also used by the department as a store house for gasoline and other combustible and explosive substances.

The rooms set apart for use in the instruction of students are as follows:

1. A large qualitative laboratory for students beginning the study of chemistry. This laboratory is fitted with work desks which are supplied with gas, water, and drain, and have drawers and lockers with combination locks. The qualitative laboratory also contains, among other things, a sink, and a fume closet for work in which noxious gases are present.

2. A quantitative laboratory for the use of advanced students. This laboratory is supplied with two thoroughly equipped work desks, fitted with gas and water pipes, a drain trough through the center, a bottle rack on the top, and drawers and lockers with combination locks. This laboratory also contains a first class fume closet and a sink.

3. A laboratory for work in Metallurgy and Mineralogy. This is a large room with a well equipped work desk twenty feet long, a brick and sheet iron covered furnace table with

four gasoline furnaces, and other accessories to make complete a laboratory of this character.

4. A fire-proof assay laboratory, which contains six gasoline crucible furnaces and two muffle furnaces. This laboratory is also supplied with a Bosworth ore crusher, a sampling plate, a complete set of sieves, crucibles, tongs, cupel moulds, and other accessories necessary in a well equipped laboratory of this character.

5. A weighing room, opening into the quantitative and assay laboratories. This room is fitted with a substantial balance table mounted on brick piers in contact with the ground, a high grade assay balance, two chemical balances, and a heavier balance for rough weighing. This room is also provided with a series of bins for storing the fluxes, assay charges, etc., and with a case for sample bottles.

6. A lecture room, supplied with a lecture desk, a sink, water, gas, charts, and other accessories.

7. A conveniently located store room for chemicals and general laboratory supplies for students.

The laboratories used for the chemical work have brick walls and wooden ceilings, fourteen feet high. Each laboratory is supplied with one or more ventilating flues which aid in the removal of fumes and in the ventilation of the rooms. The general equipment of the laboratories has been very materially increased and is modern and first class in every particular.

The laboratories fitted up for the accommodation of the Experiment Station work contain, among other things, three work desks supplied with gas, water and air exhaust pipes for rapid filtration, a commodious hood to carry off noxious gases, apparatus for the determination of nitrogen by the Kjeldahl method, a titration shelf and system of burettes, and a large still for the preparation of distilled water. The Station equipment also includes a balance table mounted on brick piers in contact with the ground, a Herzberg and Kuhlmann short beam automatic analytical balance, an Ainsworth No. 1 assay balance, two Springer torsion balances, a Scheibler polariscope, an imported mill for grinding samples, and over eight hundred dollars worth of platinum ware.

The chemical department also has a good collection of 700 mineral specimens for class use, and a department library of 350 reference books and periodicals costing $1,800.

The gas supply for the department is furnished by a 200 light Matthews gasoline gas machine which is provided with an automatic mixer whereby the gas is kept uniform in quality.

The water supply is furnished by a deep well on the college grounds, the water of which is of much better quality than most of the well waters of the valley.

Fees. See article on "Fees and Deposits" page 93.

DOMESTIC SCIENCE AND ART

PROFESSOR HORNING

MISS FOSTER

This course is especially designed to meet the needs of the young women students by giving them both practical and scientific instruction in things pertaining to the home. The course covers four years and is practically the general scientific course with slight modifications for the purpose of admiting the Domestic Science branches, which are so directly dependent upon sciences that a satisfactory course cannot be arranged independently of them.

In the department of cooking the course covers a wide range from the simplest knowledge of the subject to the making of pastry, canning fruit, and the other more difficult cookery required in the necessary catering for a home. Some knowledge of food principles and combinations is required before the regular subject of dietetics is taken up in the senior year, which, with the exception that the use of the chafing-dish is taught, is entirely given up to the scientific and theoretical side of the subject. Some knowledge of catering for the sick, and of proper serving of foods is given during the junior year.

Sewing comprises an important part of the course, and begins with the teaching of stitches, plain sewing, darning, and mending. After plain sewing has been mastered, the student begins the making of undergarments and shirtwaists. In the Senior year dressmaking is taught, including the use of charts and the fitting of dresses. The course also includes some knowledge of fancy work, the making of lace and embroideries, etc. The endeavor is so to combine theory and practice that graduates of the department may be materially aided in the administration of the household.

Domestic Science

D, C. *Plain Cooking.* This course includes the cooking of vegetables, meats, eggs, and breakfast foods. Dish-washing, the care of the fire and the oven are included.

Required of all Senior Preparatory women, first and second terms, 4 hours practice.

B. *Plain Cooking*, continued, covering the making of hot breads, simple desserts, etc.

Required of all Senior Preparatory women, third term, 2 hours practice.

A. *Hygiene.* Lectures and discussions in hygiene and special physiology.

Required of all Senior Preparatory women, third term, 1 hour.

1, 2. *Cooking* The study of food principles and the composition of foods. The cooking of starchy foods, proteids, (meats and cheese), and frying.

Required of Domestic Science Sophomores, second term, 6 hours practice; third term, 2 hours practice. Credit 48 hours.

3. *Canning and Preserving.* Preserving and canning seasonable fruits; and the principles underlying it. Jelly making, and making pickles, catchups, etc.

Required of Domestic Science Juniors, second term, 6 hours practice. Credit 36 hours.

4. *Advanced Cookery.* Advanced work consisting of bread and cake making, making desserts, salads, etc.

Required of Domestic Science Juniors, second term, 8 hours practice. Credit 48 hours.

5. *Invalid Cookery and Serving.* Cooking for the sick with particular application to special diseases. A brief waitress course including lectures and practice in the proper serving of food.

Required of Domestic Science Juniors, third term, 6 hours practice. Credit 36 hours.

6. *Dietetics.* Arrangement of daily dietary and study of food combinations with special application to disease. Reference books; Sir Gilman Thompson's "Practical Dietetics,"

Edward Atkinson's "Science of Nutrition," and other authorities on the subject.

Required of Domestic Science Seniors, first term, 2 hours. Credit 24 hours.

7. *Home Sanitation.* Lectures on heating, lighting, and ventilation. Reference book, Ellen H. Richards' "Home Sanitation" and Waring's "How to Drain a House."

Required of Domestic Science Seniors, second term, 2 hours. Credit 24 hours.

8. *Chemistry of Foods.* Chemistry of some of the commoner foods. Lectures and recitations.

Required of Domestic Science Seniors third term, 3 hours. Credit 36 hours.

9. *Chafing-dish Cookery.* Instruction with practice in the use of the chafing-dish.

Required of Domestic Science Seniors, third term, 2 hours practice. Credit 12 hours.

Equipment

The kitchen laboratory is provided with individual gas stoves on desks fitted with small closed cupboards containing those cooking utensils of which the students are in constant need; a convenient sink, a refrigerator, cupboards filled with dishes for serving, and all the utensils and conveniences found in the best equipped kitchens. There is also a large range, food charts, and charts illustrating the cuts of meat.

The department library contains many books of reference on all phases of the household including many of the latest and best books on dietetics as Sir Gilman Thompson's "Practical Dietetics;" "Diet in Health and Disease," by Yeo; "Food and Feeding," Thompson; "How to Feed Children," Hogan: on the chemistry of foods, William's "Chemistry of Cooking," "Chemistry of Foods" by Bell, Mrs. Richard's "Chemistry of Cooking and Cleaning," and other books on home sanitation, drainage, bacteriology, carving and serving, and some books on sewing and laundry work and physiology and others of general interest to the work. The best magazines on both domestic economy and domestic art are to be found in the department, making altogether very well equipped class rooms.

Domestic Art

C. B. *Sewing.* Instruction in plain sewing, mending, darning, care and use of a machine and its attachments. A set of pieces is made giving practice in basting, running, overhanding, backstitching, half-backstitching, overcasting, felling bias seams, gathering and stroking gathers, putting on band, gussets, hemming, blind hemming, hemstitching, whipped ruffle, chain, herringbone, and feather stitching, buttonholes, loops, eyelets, patching flannel and cotton goods requiring matching of figures. Machine attachments are used in constructing a set of pieces giving practice in stitching, quilting, felling, hemming, gathering, putting on lace, tucking, binding, underbraiding, etc.

Required of all Senior Preparatory women, first and second terms, 4 hours practice.

A. *Drafting.* The Jewel tailoring system is used and students are taught to draft patterns for waist, skirt, sleeve, etc.

Required of all Senior Preparatory women, third term, 2 hours practice.

1, 2. *Plain Sewing.* Making of undergarments and shirtwaists. Each student is required to draft, cut, and finish drawers, corset cover, skirt, nightgown and shirtwaist.

Required of Domestic Science Sophomores, second and third terms, 4 hours practice. Credit 48 hours.

3. *Millinery.* This course gives the student a practical knowledge of the foundation principles of millinery and involves the making and trimming of one hat.

Required of Domestic Science Juniors, first term, 2 hours practice. Credit 12 hours.

4. *Art Needlework.* Embroidery, Roman Cut Work, English Eyelet, Jewel, Mountmellick, Calcutta, and Hardanger embroidery; drawn work and lace making.

Elective for Junior Domestic Science students, first term, 2 hours practice. Credit 12 hours.

5, 6. *Dressmaking.* Cutting, fitting, and finishing a wool skirt, lined or with drop skirt, and a fancy waist.

Required of Domestic Science Seniors, first and second terms, 2 hours practice. Credit 24 hours.

7. *Dressmaking.* Each student is required to design, cut, fit, and finish one wash dress.

Required of Domestic Science Seniors, third term, 2 hours practice Credit 12 hours.

Equipment

The sewing room is well equipped with all the conveniences necessary to the department; three machines, cutting and sewing tables, lap boards, sewing chairs, and cabinets for holding samples of finished work, putting away materials, etc. A fitting room is separated from the main sewing room by portieres, and furnished with mirror, washstand, couch, and other necessaries. A number of the best magazines on fashion and needlework are regularly subscribed for.

ENGLISH AND HISTORY

PROFESSOR MACARTHUR

MISS BAKER

English

The courses in English aim at the accomplishment of two principal objects. The first is that of securing ease, clearness, and directness of expression; the second that of promotion of culture. A fact which is securing an ever wider recognition today is that no matter how well trained technically men or women may be, they will not be able to make satisfactory progress along professional lines unless capable of conveying their ideas to their fellow-workers, and of keeping in touch with the advances made in their professions. Hence it follows that throughout the course much emphasis is placed upon rhetoric; and not upon its theoretical, but especially upon its practical side. Facility in writing is not to be acquired so much by the study of a book of rules as by the actual practice of writing. For this reason the courses in rhetoric require the continuous composition of themes which are carefully criticised and returned to the student for rewriting or revisal, as the case may demand.

The educated world of the present time has a much broader conception of the word profession than that of twenty-five year ago. Engineering—mechanical, civil, or electrical—and domestic science are now coming to be recognized as professions, and very properly so. But while the world is granting such a recognition and according a corresponding social status, it expects from the new professions that broad and general culture which was distinctive of the old. The study of literature has been admitted to be one of the foremost influences making for culture, and on this account it receives a deservedly prominent position in the work of the department.

A thorough course in bibliography and the use of standard books of reference is an especially valuable feature of the course offered by this department. Opportunity to pursue advanced work in English is offered to those students wishing to do so.

No student will be admitted to college classes in Engish whose knowledge of spelling and grammar is notably deficient.

C, B, A. *Literature and Composition.* A discussion of literary principles, accompanied by the careful study of masterpieces of Burke, Macaulay, Milton, and Shakspere. For general reading a selection will be made from the works of Addison, Carlyle, Coleridge, Eliot, Goldsmith, Lowell, Scott, Shakspere, and Tennyson. A thorough drill in the elements of English Composition and the writing of themes and exercises are special features of this course.

Required of all Senior Preparatory students, throughout the year, 4 hours.

1, 2, 3. *Composition and Rhetoric.* After completing this course, the student should have a thorough and practical knowledge of Composition and of the elementary principles of Rhetoric. In this work special stress is laid upon the form, style, and thought of the written work. In the third term the principles of Argumentation are studied, and the students are given practical training in debates.

Required of all Freshmen, throughout the year, 5 hours. Credit 180 hours.

4. *English Literature.* The English drama: a reading course, accompanied by lectures upon the history of English literature.

Required of all Sophomores, first term, 5 hours. Credit 60 hours.

5. *English Literature.* English Poetry from Chaucer to Tennyson.

Required of all Sophomores, except those in the Agricultural course, second term, 5 hours. Credit 60 hours.

6. *English Literature.* English Fiction: the study of works

by Defoe, Goldsmith, Walpole, Mackenzie, Austen, Scott, Eliot, Thackeray, Bronté, Dickens, Hawthorne, and Stevenson, accompanied by lectures on the development of English fiction.

Required of all Sophomores, except those in the Agricultural course, third term, 5 hours. Credit 60 hours.

7. *Classification.* Reading 19th century historians; Hart, von Holst, Henry Adams, Mahan. Use of books: the making of a list of subject headings for the magazines taken by the various libraries. "A. L. A. list of subject headings" used as a text. Library work: the use of the card catalog. This includes the writing of a few sets of cards. Particular attention will be given to careful penmanship. Additional work in penmanship may be required of individual students.

Required of all Juniors, first term, 1 hour. Credit 12 hours.

8. *Bibliography.* Reading: selections on social and economic subjects; Riis, Addams, Van Voorst, Steffens. Use of books: making practice bibliographies, the subjects being assigned. Library work: the careful study of the reference books in the different libraries. "Kroeger's Guide to the study of reference books" used as a text.

Required of all Juniors, second term, 1 hour. Credit 12 hours.

9. *Bibliography.* Reading: selections from American nature writers: Audubon, Thoreau, Burroughs, Long, and Gibson. Use of books: each student makes a bibliography, selecting the subject himself. Regular students select a subject leading to their theses.

Required of all Juniors, second term, 1 hour. Credit 12 hours.

10, 11, 12. *Advanced Composition.* A theme course accompanied by a thorough study of the larger rhetorical principles, and by the reading of selections from authors whose works are considered models of style.

Required of Juniors in the Mechanical Engineering course, and of Seniors in all other courses, throughout the year, 2 hours. Credit 72 hours.

13, 14, 15. *Technical English.* This course is designed to meet the needs of students desiring to pursue some special line of writing. The work will consist, for the most part, of individual conferences with the instructor, in which way deficiencies may best be remedied, and the fullest development of the student secured.

Elective. Open to students of the Junior and Senior years, throughout the year, 3 hours. Credit 108 hours.

Equipment

The general library of the college offers exceptional advantages to the students of this department, The library is not only the finest in this part of the Southwest, but, from the standpoint of the English student, it can hold its own with many found in well known institutions in the East. It contains all the English masterpieces, and has a particularly large representation of American literature. In addition to this, its accessions include copies of all contemporary works which receive the favorable notice of the press. The most important literary magazines come regularly to it, and in this way the students have every opportunity of keeping themselves informed as to the most recent movements in the literary world.

There are several flourishing literary societies in the college, and students are urged to seek admission to these and to engage actively in their work.

A dramatic club has been formed under the auspices of the department and during the past year gave two eminently successful performances. Membership in this organization gives the students an opportunity to receive training in vocal expression. The club has in its possession four sets of scenery and all the appliances for staging a modern play.

During the coming year some lectures devoted to art and travel will be given in connection with the work of the department. They will be illustrated by the large stereopticon recently bought by the college.

History

The ends aimed at in teaching this subject are: (1) to acquaint the student with the most important facts of ancient, mediaeval, and modern history; (2) to aid him interpreting these facts into the prevailing thought of the people at the time of the events; (3) to direct the student's attention to such literature as will assist him in getting a vivid idea of the life of the times of which the history treats.

B. *General History.* The histories of Greece and Rome in outline.

Required of all Senior Preparatory students, first term, 4 hours.

A. *English History.* The history of England in outline.

Required of all Senior Preparatory students, second term, 4 hours.

1. *General History.* History of the Middle Ages.

Required only of students in the General course, third term, Sophomore year, 5 hours. Credit 60 hours.

2. *History of Civilization.* Introduction to the more important elements that have influenced existing civilizations, and explanation of their fusion. A careful study of European civilization as outlined by Guizot.

Required of Domestic Science and General Seniors, second term, 5 hours. Credit 60 hours.

Equipment

The department of history is reasonably well equipped. It possesses MacCoun's Ancient and Classical Charts, MacCoun's Mediaeval and Modern Charts, Johnston's Imperial Chart of the World, Johnston's Imperial Map of Europe, Appleton's Universal Cyclopedia and Atlas, (12 volumes), Larned's History for Ready Reference, (5 volumes), Ridpath's History of the World, (4 volumes), and other works. The general library of the college contains a large collection of standard historical works, and also has in its possession a considerable amount of material which will serve the purposes of original investigation.

MATHEMATICS AND ASTRONOMY

PROFESSOR HAGERTY

Mathematics

C, B, A. *Algebra.* General review from the beginning of algebra to evolution; theory of exponents, radicals, quadratic equations, ratio, proportion, variation, progressions, imaginary quantities, inequalities, variables and limits, the binomial theorem (positive integral exponents), and logarithms. Text-book, Milne's Academic Algebra.

Required of all Senior Preparatory students, throughout the year, 5 hours.

1, 2. *Plane Geometry.* Nearly one-third of the time is given to original exercises. Text-book, Wentworth's Plane and Solid Geometry.

Required of all Freshmen, first and second terms, 5 hours. Credit 120 hours.

3. *Solid Geometry.* In order to add interest to the study of this subject and to fix in the mind the propositions demonstrated, many numerical exercises are given.

Required of all Freshmen, third term, 5 hours. Credit 60 hours.

4. *Plane Trigonometry.* Some practical problems are given requiring students to use a surveyor's transit for measuring both horizontal and vertical angles. This course includes an introduction to spherical trigonometry.

Required of all Sophomores, first term, 5 hours. Credit 60 hours.

5. *Higher Algebra.* Indeterminate equations, undetermined coefficients, binomial theorem (any exponent), permutations and combinations, series and theory of equations.

Required of Sophomore Mechanical Engineers, elective for all other students who have completed Mathematics 4, third term, 5 hours. Credit 60 hours.

6. *Analytic Geometry.* Loci and their equations, straight line and circle, transformation of co-ordinates, parabola, el-

lipse, hyperbola, general equation of the second degree, discussion of a few of the higher plane curves, and an introduction to geometry of three dimensions.

Required of Junior Mechanical Engineers, elective for all other students who have completed Mathematics 5, first term, 5 hours. Credit 60 hours.

7, 8. *Differential and Integral Calculus.* The topics treated are those usually taken up in accordance with well-established usage; and many practical problems from mechanics are solved by the student in order to maintain his interest, and to fix in his mind the principles which have been explained.

Required of Junior Mechanical Engineers, elective for all other students who have completed Mathematics 6, second and third terms, 5 hours. Credit 120 hours.

Astronomy

1. *General Astronomy.* Not only astronomical facts and principles will be studied, but also the methods by which these facts have been ascertained. Night observations constitute an important part of the course. The text-book used is Young's General Astronomy.

Required of General and Domestic Science Juniors, elective for all other students who have completed Mathematics 4, 5 hours plus 2 hours practice. Credit 72 hours.

2, 3. *General Astronomy.* Continuation of Astronomy 1, about half the time being devoted to night observations.

Required of General and Domestic Science Juniors, elective for all other students who have completed Astronomy 1, second and third terms, 2 hours or equivalent in practice. Credit 48 hours.

Surveying

1. The instruction in this subject will be such as to render the students familiar with the principal instruments and methods used in plane and topographical surveying. Levels will be run, surveys made, notes plotted, and areas computed. Students will have practice in determining the true meridian and latitude, by observation of the north star and of the sun.

Required of all (except Domestic Science) Sophomores, second term, 1 hour plus 8 hours practice. Credit 60 hours.

Equipment

This department has a portable equatorial telescope with 4½ inch objective and magnifying powers ranging from 50 to 400; planetarium, star lantern with slides, star atlases, planisphere, 24-inch slated globe, trigonometer, Kennedy's dissected geometrical blocks; a surveyor's compass, three transits, one of which has a gradienter and all have solar attachments, engineer's level, plane table, protractors, aneroid barometer, optical square, planimeter, pantograph, chains, tapes, leveling rods, poles, pins, Fuller's spiral slide rule, and Bausch and Lomb-Zeiss stereo-binocular magnifying 7½ diameters.

Students will be held responsible for all equipment used by them, and any loss or breakage must be made good to the college.

The department library contains many valuable books of reference, and several periodicals.

MECHANICAL ENGINEERING

PROFESSOR PAUL
ASSISTANT PROFESSOR SAGE
MR. MILLER

Instruction in this course is given by lectures, recitations, and practice, so combined as to constitute a symmetrical course of study. The endeavor is to provide the student with a broad foundation of general and theoretical knowledge, together with a liberal amount of practice in the line of his chosen profession.

Much time is necessarily devoted to higher mathematics and to technical subjects; yet certain fundamental studies, necessary to a broad and liberal education, such as physics, chemistry, languages, literature, and political economy, are provided for.

The student is given a thorough training in the theoretical branches underlying the science of machines, together with a clear understanding of the practical construction of mechanical devices.

Shop practice offers practical illustrations of the precepts taught in the class-room, and is a most essential part of the Mechanical Engineering Course.

No attempt is made to teach trades, but the course in shop practice furnishes such training as will insure marked advancement subsequent to graduation.

The practice is supplemented by lectures on the care and use of the various tools, machines, and materials used in the mechanical engineering profession.

B, A. *Free-hand Drawing.* Outline drawing from blackboard; systematic drill in the execution of curves and scrolls; principles of perspective as applied in the drawing of simple type forms, shop models, etc.; relative proportion and the study of the values of light and shade are developed in the execution of drawings of buildings, corners of rooms, etc.; lettering and conventional ornament is taken up. The advanced work is given with particular reference to the course pursued by the student.

Required of all Senior Preparatory students and Practical Mechanics men, first and second terms, 2 hours practice.

1, 2, 3, 4. *Mechanical Drawing.* Instruction in the use and care of drafting instruments; exercises in geometrical construction, lettering, plane projections, shading, and coloring; followed by detail and assembled working drawings of machinery with tracings and blue prints therefrom.

Required of Mechanical Engineers, Freshmen, first and third terms, Sophomores, second and third terms, 4 hours practice. Credit 96 hours.

5, 6, 7. *Machine Design.* Mechanical Drawing is merged into Machine Design, of which it forms an important part, and affords constant opportunity for further practice in making drawings of standard types of machinery. The work in this subject consists chiefly in the design of the elements of machines, such as bolts, rivets, riveted joints, journals and bearings, pulleys, gears, cams, etc., also the complete design of a steam boiler.

Required of Mechanical Engineers, Juniors, second and third terms, Seniors, first term, 4 hours practice. Credit 72 hours.

8. *Descriptive Geometry.* In this subject the principles of orthographic projection, development of lines and surfaces, etc., are fully discussed in the class room; and a great variety of problems, illustrating both general and special cases, are solved and constructed in the drafting room.

Required of Sophomore Mechanical Engineers, second term, 5 hours. Credit 60 hours.

9. *Elementary Mechanics.* In this subject the general laws of statics and dynamics are studied with reference to solids, liquids and gases; and the fundamental principles are applied to the solution of a wide range of problems.

Required of Junior Mechanical Engineers, first term 4 hours. Credit 48 hours.

10. *Mechanism.* Under this head are studied the principles underlying the action of the elementary combinations of which all machines are composed: the communication of motion by gear wheels, belts, cams, screws, link work, etc.

Required of Junior Mechanical Engineers, second term, 5 hours. Credit 60 hours.

11. *Graphic Statics.* This subject treats of the solution of engineering problems by means of drafting room methods, and the design of roof and bridge trusses by simple but accurate methods.

Required of Junior Mechanical Engineers, first term, 4 hours practice. Credit 24 hours.

12. *Steam Boilers and Engines.* Under this head the principles underlying the construction of the various forms of steam boilers are studied. Attention is given to the various details in their design or operation, such as the size of flues, thickness of plates, styles of riveting, bracing, the amount of grate and heating surfaces, etc., as well as to various attachments.

The student makes a study of the general principles of the steam engine and of the various types in common use, and investigates the many problems relating to their structure and efficiency.

Required of Junior Mechanical Engineers, third term, 4 hours. Credit 48 hours.

13. *Valve Gears.* In this subject it is endeavored to make the student familiar with the different types of valves used on all kinds of engines, and the various mechanisms by which they are guided and regulated in their action.

Required of Senior Mechanical Engineers, first term, 2 hours. Credit 24 hours.

14. *Hydraulics.* This includes the study and application of the principles of the subject to the various problems involved; such as the flow of water through orifices, short and long tubes, conduits, and in open channels; gauging streams, measurements of water power, etc.

Required of Senior Mechanical Engineers, first term, 5 hours. Credit 60 hours.

15. *Applied Mechanics.* The work of the first term in this subject embraces a study of the laws of equilibrium, motion, work, and energy, as applied to particles and rigid bodies; also a study of the center of gravity and the moment of inertia. The stresses in the steam engine are investigated and the subject of friction is carefully taken up.

Required of Senior Mechanical Engineers, first term, 5 hours. Credit 60 hours.

16. *Applied Mechanics.* The second term of work in the subject considers the conditions of stress, strain, and elasticity of materials. Bending moments in beams are investigated under various conditions of loading, and the strength of building materials is very carefully looked into. Bridge and roof trusses are discussed, and the stresses in structures are figured. Experiments to determine the strength of different building materials accompany recitations.

Required of Senior Mechanical Engineers, second term, 5 hours. Credit 60 hours.

17. *Electrical Engineering.* The first term of work is composed largely of elementary principles of a nature leading to the preparation of the student for the principles which lead to the practical work of the second term. Experimental work is introduced during class hours as far as possible to familiarize the student with the various forms of electrical apparatus.

Required of Senior Mechanical Engineers, second term, 4 hours. Credit 48 hours.

18. *Electrical Engineering.* The work of the second term takes up the principles of electric power generation, and the application of electricity to lighting, street railways, and mining work.

Required of Senior Mechanical Engineers, third term, 5 hours. Credit 60 hours.

19. *Thermodynamics.* This subject treats of the solution of problems involving the action of heat as applied to steam engines, gas engines, and other thermal motors. The use of compressed air and refrigerating machines is also thoroughly

discussed, so that the student may become familiar with present day practice.

Required of Senior Mechanical Engineers, second term, 2 hours. Credit 24 hours.

20. *Engineering Structures.* This subject embraces a study of the design and construction of foundations and superstructures, the selection of materials, superintendence, specifications, etc.

Required of Senior Mechanical Engineers, third term, 5 hours. Credit 60 hours.

21. *Engineering Laboratory.* The student spends three afternoons each week in the engineering laboratories investigating by practical methods the exact strength of materials, including iron, steel, rope, wire, chains, wood, stone, brick, etc. Tests are made in connection with the engine and boiler plant, both with and without the electric plant in connection. Steam gages are accurately tested, and the student is given a careful training in engineering practice.

Required of Senior Mechanical Engineers, third term, 6 hours practice. Credit 36 hours.

D. C. *Carpentry.* Reading drawings, sawing, planing, gauging, chiseling, boring, mortising, dove-tailing, fitting and joinery.

Required of all male Senior Preparatory students, first and second terms, 6 hours practice.

22. *Wood Turning.* Exercise in turning between centers, face-plate and chuck work, ornamental turning, finishing and polishing.

Required of Freshmen Mechanical Engineers and Practical Mechanics men, first term, 6 hours practice. Credit 36 hours.

23. *Forging.* Care of fire, heating, drawing out, bending, upsetting, swaging, welding, tempering, annealing, tool making and dressing, ornamental iron work.

Required of Freshmen Mechanical Engineers and Practical Mechanics men, second term, 10 hours practice. Credit 60 hours.

24, *Advanced Carpentry.* Glue joints, panel work, tables, bookcases, etc. Timber framing and the construction of miniature buildings will be carried far enough to show the best methods of framing, "laying out," and cutting, hip, valley, or jack rafters.

Required of Freshmen Mechanical Engineers and Practical Mechanics men, third term, 6 hours practice. Credit 36 hours.

25. *Pattern Making.* Pattern and core boxes for the molding of simple machine parts.

Required of Sophomore Mechanical Engineers, first term, 10 hours practice. Credit 60 hours.

26. *Foundry Practice.* Mixing and tempering molding and core sands; molding in green and dry sand, skin drying, making and drying cores.

Required of Sophomore Mechanical Engineers, third term, 6 hours practice. Credit 36 hours.

27. *Bench Work in Iron.* Laying out work, chipping, filing, fitting, scraping, polishing, key-seating, drilling and tapping, hand work with machine tools.

Required of Junior Mechanical Engineers, first term, 6 hours practice. Credit 36 hours.

28, 29. *Machine Work.* Elementary machine-tool work with drill-press, planer, shaper, and lathe; production of finished machine elements.

Required of Junior and Senior Mechanical Engineers, third and first terms, 6 and 4 hours practice, respectively. Credit 60 hours.

Equipment

The department has two commodious buildings devoted to its work. One has rooms for a forge shop, foundry, and storage; the other contains two recitation rooms and a hall, an engine and boiler room, and rooms for wood work and machine work.

An excellent department library containing standard works pertaining to the engineering professions is accessible to students.

Mechanical and Electrical Laboratory

The power equipment of the college consisting of the following engines, boilers, etc., affords opportunity for investigation, by the students, on the subject of steam and steam engine practice:—one 40 horse power tubular boiler, one 50 horse power Hoppes feed water heater and purifier, one duplex steam pump, one 30 horse power Weston automatic engine, one 8 horse power Shipman engine and boiler, one 13 horse power Priestman oil engine, one 15 horse power Witte gasoline engine, one air pump and reservoir. The equipment also includes indicators for steam and oil engine testing, one standard steam gauge tester, two planimeters, a gas meter, one tachometer, one Olsen testing machine of 60,000 lbs. capacity with full equipment for tension, compression, and transverse tests. A current meter, hook gauge, and other instruments are available for work in hydraulics.

One 12 horse power 250 volt dynamo, one 8 horse power motor with switch board instruments, one Weston portable ammeter, one Weston portable volt meter.

The Machine Shop has one 16-inch x 6 foot tool room lathe with compound rest and taper attachment, one 14-inch x 8 foot standard engine lathe, one 12-inch x 5 foot standard engine lathe, one 24-inch x 24 inch x 6 foot planer, one 14-inch shaper, one 22-inch power drill press, one sensitive drill, one gas pipe threading and cutting off machine, one power hacksaw, one improved double wheel emery grinder; also a large number and good assortment of drills, chucks, small tools, and machine attachments.

The Wood-working Shop contains fourteen benches, six 10-inch lathes, one 18-inch x 10 foot lathe, with over-hanging face-plate capable of turning work up to 80 inches in diameter, one combination rip and cross cut circular saw, one Fox trimmer, one large grindstone with Brown and Sharp frame, and a good supply of small tools and appliances.

In the forge shop are twelve forges of the latest down-draft model with improved undergound arrangements for the blast and exhaust pipes, one forge being equipped with a hand blower.

Each forge is fitted with a full set of hammers, tongs, swages, fuller, etc. An 18-inch hand power drill press and a punching and shearing machine form a part of this equipment.

The foundry has a brass furnace, the usual small tools, and a number of flasks for moulding.

A Two Years' Course in Practical Mechanics

The course is established for the benefit of those wishing to specialize in Manual Training operations or who have not the time to take the regular college course requiring from four to six years.

It is not the intention to teach trades in this course, but the advantages of the shops are offered free to young men who can not enter regularly in the college classes. Since instruction rather than money making is the object, it can readily be seen that the work under skilled instructors has many advantages over the ordinary trade apprenticeship.

While there are no educational requirements for admission to this course, the student must be at least sixteen years of age, and show his fitness for the work. The amount of shop practice work in the first year is greatly in excess of that required of Freshmen in the Mechanical Engineering course, and is of the same grade. During the second year the student will be allowed to specialize in either wood or iron work and the drawing pertaining thereto.

POLITICAL ECONOMY AND PSYCHOLOGY

PRESIDENT FOSTER

Political Economy

1. *Political Economy.* In this subject the student is made sufficiently acquainted with the economic conditions affecting public questions of the day, particularly in the United States, to judge of them intelligently. Public questions and the economic principles which underlie them are presented in such a form as to make them attractive and easy to understand. Application of the principles of political economy is made to the leading questions of the day, such as, socialism, taxation, the national debt, free trade and protection, bimetalism, United States notes, banking, the national banking system, the labor problem, and cooperation.

The first half of the term is given to a study of principles and the rest to their application to practical questions. The whole course is interspersed with problems intended to stimulate the student to think out the application of the principles for himself. Among the subjects considered are the following: principles that control the production of wealth and inquiries as to the possibility of increasing wealth; investigation of the causes that give value to what is produced and explanation of the methods by which products are exchanged for each other by means of money and various forms of credit; questions pertaining to the distribution of what has been produced among the persons who have had a share in the production, that is, the principles which govern the respective sum which each party to the production, the laborer and the capitalist, should receive out of the total amount. Laughlin's Elements of Political Economy is used as a textbook.

Required of all Juniors, second term 4 hours. Credit 48 hours.

Psychology

1. *Psychology.* This course is intended to give a general knowledge of Elementary Psychology. It includes the following subjects: structure and functions of the sense organs and the nervous system; consciousness and attention; sensations, their classification and analysis; perception and its cultivation; association of ideas and cultivation of memory; imagination and its culture: concept, judgment, reasoning, and thought culture; feeling, emotion, and the formation of correct emotional habits; the will, its foundations, types of action, development and cultivation. Halleck's Psychology and Psychic Culture is used as a text-book.

Required of Domestic Science and General Seniors, first term, 5 hours. Credit 60 hours.

SPANISH AND LATIN

PROFESSOR HOBLIT

Spanish

Spanish, the mother tongue of a large proportion of the people of New Mexico, is given a prominent place in the work of this institution. Students who may desire to learn to speak the language will here find distinct advantages. They will hear it spoken constantly by scores of young people in and about the college, while the neighboring towns afford additional opportunities for practice. In the courts, churches, and stores, Spanish is heard almost as much as English.

Three courses are offered by the college, each extending over thirty-six weeks. Students are expected to take the courses in the order in which they are outlined below, but after Elementary Spanish, other work not conflicting, those who may desire to specialize in Commercial Spanish may choose that course to complete the required work.

Courses

1, 2, 3. *Elementary Spanish.* Giese's First Spanish Book and Reader, with additional work upon the irregular verbs and syntax. In addition to the selections from Gil Blas found in Giese, Alarcón's Capitan Veneno is read during the spring term. Practice in translation, theme-writing, and conversation.

Required of all students who do not elect Latin—Freshmen of the General, Domestic Science, and Mechanical Engineering courses, and Sophomores of the course in Agriculture. Three terms, 5 hours. Credit 180 hours.

4, 5, 6. *Novels, Poetry, and Drama.* Careful reading of a few representative works, with translation of selected passages. The aim is to equip the student for rapid and appreciative reading of the best literary productions. A part of the spring term is devoted to a brief survey of Spanish

Literature. Exercises in composition and conversation upon subjects suggested by the reading are features of the work.

Required of all Sophomores who do not elect Latin, except students of Agriculture and Mechanical Engineering. Elective to others who have completed Spanish 1, 2, 3, or an equivalent. Three terms, 5 hours. Credit 180 hours.

7, 8, 9. *Commercial Spanish.* The aim of this course is purely practical, with particular reference to the commercial use of the language. Reading of Jevons' Nociones de Economía Política, and Ramón y Salamero's Castellano Actual and Epistolario Castellano. The writing of Spanish and practice in conversation are made prominent features of the course.

Required of all students of Spanish Stenography, and elective to others who have completed Spanish 1, 2, 3, or an equivalent. Three terms, 5 hours. Credit 180 hours.

Equipment

The department is supplied with much general reading matter, including Rivadeneyra's Biblioteca de Autores Españoles in seventy volumes, and a considerable number of works of recent novelists, short story writers, poets, and critics. The equipment in reference books, general and technical dictionaries, manuals of correspondence and business forms, is quite complete.

SPANISH BY CORRESPONDENCE

For the convenience of those desiring to study Spanish, but who are not able to pursue the work at the college, a number of courses are offered by correspondence. Each course is intended to cover the ground of two terms college work and will be given that amount of credit whenever the student shall have satisfactorily completed the course.

Plan of Work

Instruction sheets giving suggestions and assistance, and assigning tasks to be performed, are furnished by the instructor. At regular intervals, the student mails to the instructor a recitation paper containing the tasks assigned in the instruction sheet, answers to the questions, and any additional questions concerning difficulties which he may have encountered in his study. This recitation paper is read and corrected by the instructor and returned to the student with such suggestions and criticisms as may be necessary.

Courses

Three courses are offered by this college as follows:

1. *Elementary Spanish.* This is designed to introduce the student to the principles of the language, grounding him in the grammar, and leading to a fair reading knowledge and the ability to translate easy English into Spanish. A textbook is used, supplemented by additional notes and explanations by the instructor.

2. *Novels, Poetry, and Drama.* A careful study of several representatives works, with grammatical notes and questions and composition exercises based upon the matter read. The aim is to equip the student for appreciative reading of the best Spanish literary productions. In the poetry, some attention is given to the laws of versification, and prose paraphrases are required from time to time.

3. *Commercial Spanish.* A practical course designed to fit students for positions where a knowledge of the commercial usage of the language is essential. Reading of Ramón y Salamero's Castellano Actual and Epistolario Castellano. Accurate translations, and exercises in letter writing and other forms of composition.

Enrollment and Fees

Correspondence courses many be begun at any time of the year, but they must be completed within one year from the date of enrollment. Extension of time to the amount of three months will be granted only on account of sickness or other serious disability.

Each course consists of forty written lessons with the corresponding corrections and comments of the instructor.

The tuition for each course is $15.00, the student paying for his books and the postage stamps employed in the correspondence.

No fees will be refunded on account of a student's inability to continue a course for which he has registered.

Further information will be given upon application to the department of Spanish of the college.

Latin

The study of Latin is limited to two years, the work accomplished being that usually done in courses of like duration. The Roman pronunciation is used. A good knowledge of English grammar is a prerequisite to a profitable study of Latin.

Students may at their option substitute Latin for the required work in Spanish, except in the case of students of Spanish stenography. Students of Agriculture may elect a second year's work.

Courses

1, 2, 3. *Elementary Latin.* Lowe and Butler's Bellum Helveticum, revised by Walker. Attention is constantly directly to the etymological relations between Latin and English.

Required of all students who do not elect Spanish. Three terms, 5 hours. Credit 180 hours.

4, 5, 6. *Cæsar's Gallic War.* Miller and Beeson's Second Latin Book. Colloquies and compositions based upon the text.

Required of all Sophomores who do not elect Spanish, except students of Agriculture and Mechanical Engineering. Three terms, 5 hours. Credit 180 hours.

MILITARY SCIENCE AND TACTICS

COLONEL EDWARDS

The primary object of this department is to furnish the country each year with a class of young men who are fitted to become efficient officers of volunteers in time of war.

For this reason the department is fostered by the United States government, and is practically maintained by it without expense to the college.

The professor is an officer of the army detailed for this duty by the President of the United States, and the equipment—of the value of about five thousand dollars—is issued to the college by the War Department. It includes two pieces of artillery with their accompanying limbers, cadet rifles and bayonets, belts, cartridge boxes, and a yearly allowance of ammunition for target practice.

The military course is required to be taken by all physically qualified male students of the college and preparatory department in regular or special classes, or courses in Agriculture, Practical Mechanics and Stenography, except juniors, seniors, and graduate students. In exceptional cases college students, in their sophomore year, who have pursued the military course satisfactorily for three years may be excused from the regular work of the course by a vote of the faculty; but such students must continue to wear the cadet uniform, and may be required to drill or parade on special or ceremonial occasions until they have attained junior standing.

The department offers the following comprehensive course of instruction:

(a) Practical:—

Infantry drill regulations, through the school of the battalion in close and extended order. This includes the ceremonies of battalion parade, review and inspection, guard mounting, and escort of the colors,marches, outposts, advance and rear guards, etc.

Field service regulations.

Manual of guard duty.

Firing regulations for small arms, with target practice at ranges from one to six hundred yards.

(b) Theoretical:—

This includes the portions of the above subjects covered by the practical instruction, and may be supplemented by lectures.

Aside from its probable benefit to the country in time of war, this course is of great and immediate value to the individual student. The drills and exercises are mild forms of physical training, giving an erect and graceful carriage and correcting the bad habits of body to which students are prone. But their chief value to the student lies in the mental and moral discipline they afford, for, by their practice, he acquires the habit of self control, respect for authority, and the fitness to exercise it.

Uniform

The uniform is of standard cadet gray woolen cloth, and consists of cap, modeled on the army pattern, blouse, and trousers cut in the West Point cadet style.

Active members of the cadet corps are required to wear the uniform at all military formations, with white Berlin gloves, and plain white standing collar.

Cost of Uniform

The uniform—cap, blouse and trousers—costs from fifteen to sixteen dollars; Berlin gloves twenty cents a pair. The cadet will require four pairs of gloves for the school year; these are washed with the weekly laundry.

Each student classified for the military course will be required to deposit with the Registrar the amount necessary to purchase a comple uniform when he commences this work.

The uniform of the college may be worn by any male student in good standing. When worn it must be in a military manner, shall be complete, not combined with articles of civilian clothing, and in the case of students not active members of the Cadet Corps, it is not to be accompanied by any insignia of rank in the Corps. But this prohibition shall not apply to special social or ceremonial occasions when it may be desired to show former membership and rank.

OFFICERS OF THE BATTALION OF CADETS

Field and Staff

Major, Rex E. Gilliam; Captain and Adjutant, Herbert Alleman; Sergeant Major, Donald Young; Chief Trumpeter, Archie Poe.

COMPANY A.

Captain Arthur Fraker.
1st Lieut., Edward Redding.
2d Lieut., Walter Ames.
1st Sergt., William Endicott.
Sergt., F. F. Lucero.
" Jay Cowell.
" Edward C. Wade.
Corporal Geo. Quesenberry.
" Jas. A. Steel.
" Earl Wilson.
Musician Oliver Keese.
" John Powers.

COMPANY B.

Captain Jacob A. Sweet.
1st Lieut., Jesse R. Mundell.
2d Lieut., Jas. R. Poe.
1st Sergt., Philip E. Dessauer.
Sergt., Herbert C. Stewart.
" Richard Elliott.
" Earl C. Hornbrook.
" William Gallacher.
Corporal John A. Anderson.
" E. C. Edwards.
" Edward Hall.
Musician R. L. Stewart.

MUSIC

MISS BENNETT

MISS MORRISON

In response to a growing demand, this institution offers excellent facilities for the study of music. Two departments, one in instrumental and the other in vocal music, have been organized, each under the direction of a competent teacher. An attractive music room has been provided in the new wing of the Women's Hall. The college has five good pianos, and the students in music are allowed the use of them without extra charge. Terms of tuition are very moderate.

INSTRUMENTAL MUSIC

In the course of instruction in instrumental music the various elements entering into that art receive the most careful attention, the training in technic being especially thorough and in accordance with the most approved and modern methods, while the compositions for study are selected with a view to securing a true and thorough musical culture. Each student's work is planned with reference to his particular requirements, the aim being the development of a musical touch and a refined and intelligent style of playing. To this end, while the courses outlined below are, in general, followed, the needs of the individual pupil are, in all cases, consulted and, if necessary, the studies varied accordingly.

Courses of Study

First Year. Technic:—Hanon, Virtuoso Pianist. Etudes:—Selected from Koehler, Loeschorn, Heller, Czerny, and others Bach:—Two part inventions. Pieces:—By Schumann, Clementi, Haydn, Mozart, Beethoven, and modern composers.

Second Year. Technic:—Hanon, Virtuoso Pianist (continued), and Czerny; daily exercises. Etudes:—Selected from

Heller, Czerny, Clementi, etc. Bach:—Three part inventions Pieces:—By classic and modern composers.

Third and Fourth Year courses will be offered to such students as may desire to pursue more advanced work.

The College gives credit to students pursuing the work in instrumental music with accompanying practice, of 30 hours per term, such credits being accepted as the equivalent of the same number of hours in any other subject leading to a degree.

VOCAL MUSIC

The work in vocal music is divided into private work and general class and chorus work. The course in private lessons is complete and thorough. Particular attention is given to correct breathing, tone production, and distinct enunciation.

Courses of Study

First Year. Vocalises by Concone, Sieber, Vaccai. Songs by American and English composers.

Second Year. Vocalises by Panofka, Marchesi, Bordogni. German Lieder. More difficult English and American songs.

The Choral Class, to which all students of the institution are admitted free of charge, recites daily and has a regular place on the college program. The work is not compulsory upon any one, but students who elect this work must attend all recitations and do the work required as they would do any other class work. Any failure to act in this way will be treated as similar failures are treated in other classes. Choruses are chosen from the work of well known composers.

It is customary for this class to give a light opera at the end of the school year, and one night of commencement week is set aside for this performance.

Terms of Tuition

Instrumental Music. Private lessons, one lesson per week for one term	$12 00
Class lessons, one lesson per week, two in class, for one term, each	9 00

Vocal Music. Private lessons, one lesson per week for one term	12 00
Private lessons, two lessons per week for one term	18 00

Special Regulations

Class Lessons. In class lessons no reduction will be made for any pupil who enters late in the term, for temporary absence, or for withdrawal before the close of the term.

Private Lessons. In private lessons no allowance will be made for omitted lessons except in case of protracted illness, and in such case due notice must have been received as early as the day before the lesson day. No reduction will be made for pupils entering late in the term. However, those entering after six weeks of the term have elapsed will not be charged by the term, but at a special rate per lesson for the remainder of the term, to be arranged with the instructor in charge.

Music pupils withdrawing before the end of the term will be charged at the rate of $1.25 per lesson for all lessons taken.

COMMERCIAL TRAINING

The college offers an elective course of five hours per week for one year, which is intended to give a thorough drill in all practical commercial calculations, in double-entry book-keeping, business forms and business customs.

1. *Commercial Arithmetic.* To enter this class applicants must pass an examination in the fundamental operations of arithmetic, including common and decimal fractions. Certificates will not be accepted in lieu of the examination.

Elective to all students who pass the required entrance examination, first term, 5 hours. Credit 60 hours.

2, 3. *Book-keeping and Business Forms.* This course will give students such training in the essentials of double entry book-keeping as will fit them to take an office position.

Elective to all students who have completed course 1 or its equivalent, second and third terms, 5 hours. Credit 120 hours.

STENOGRAPHY AND TYPEWRITING

MR. LESTER, PRINCIPAL

MR. MILLER

To meet the demand for instruction in stenography and typewriting the above department is maintained in the college. To avoid interference with the regular college work, the work of this department is kept distinct, with certain requirements, and a definite course of study.

Requirements for Admission. For entrance to the course in English Stenography, students must be at least sixteen years of age. The average age of the enrollment in this department, however, is usually much higher than this. In recent years the average has been 22½ years. Graduates of any commissioned high school in the territory will be admitted without examination. All other applicants must show that they possess the required ability in English to enter the Freshman English class of the regular college course. See page 53.

No guarantee is given to any student pursuing these courses that he will secure a position upon completion thereof. There is, however, little doubt that any student satisfactorily completing a required course will be able to take a position, and no competent graduate of the department has yet failed to do so.

Equipment. The department is equipped with sixteen typewriters, Remington, Smith Premier, and Oliver machines. There are also the necessary appliances for the required work under office practice.

It is important that students enter this department promptly at the beginning of the courses. It is seldom that one who enters late is able to complete the required work satisfactorily. No provision can be made for commencing the work of a course at any other time than as provided. The courses of study in English and Spanish Stenography will be found on page 22.

Stenography. Stenography 1, in the first term of this course, is elementary in character, being a thorough study of the principles of shorthand. Stenography 2, in the second term, covers word signs and outline drill; and in the third term, Stenography 3 consists of advanced grade work, introducing a good deal of business and other dictation.

Text-books: Graham's Standard Phonography, revised edition; Graham's First and Second Readers; Graham's Business Letters, Series 1 and 2, and Amanuensis Practice.

Typewriting. This work covers fingering, touch, copying, letter-writing, legal and commercial forms, typewriting from dictation, mechanism and care of the machine, speed exercises, and transcription from shorthand notes. The four finger touch method is used, with blank key-board. Work absolutely free from errors is required. Opportunity is afforded students for work on both single and double key-board machines.

Text-book: Barnes' Complete Typewriting Instructor; Van Sant's Typewriting Charts.

Office Practice. This work, occurring in the third term, covers letter writing, indexing and filing, proof-reading, duplicating and manifolding. A small charge is made for material used.

English-Spanish Stenography

The experience of past years has shown conclusively that a strong and growing demand exists for competent English-Spanish stenographers. The conditions existing in this locality and institution are so favorable for work in English-Spanish stenography that they may be said to be almost unique. The calls upon this college for such stenographers during the past few years have far exceeded the supply. Although these calls come principally from Mexico, there is an increasing demand in the United States and the newly acquired Spanish-speaking possessions and it is believed that the business opportunities open to competent English-Spanish stenographers are most desirable.

For admission to this course students must show that they are prepared to complete the course within one year. To do this some previous knowledge of both English shorthand and the Spanish language is desirable and usually necessary.

Stenography. Stenography 4, 5, and 6 in this course is advanced work in English Stenography, and consists of rapid dictation and business forms. Stenography 7 and 8 is the work in Spanish Stenograghy, during which the principles of the text book used are first gone over, followed by work in Spanish dictation.

Text-book: Lester and Barker's English-Spanish Phonography.

Special Work. Under this head provision is made for special work in English, to thoroughly train Spanish speaking students; or for special work in Spanish, in the Freshman or Sophomore classes, for those whose knowledge of that language is not sufficient.

Typewriting. Typewriting 4, 5, and 6 is principally English and Spanish transcription work, with such advanced work as the time allotted will permit.

THE PREPARATORY DEPARTMENT

PROFESSOR RICHARDS, PRINCIPAL

MISS COMBS

MISS SHIMER

MISS THOMAS

This department has been planned primarily for young men and women who desire to prepare themselves for some of the regular courses of the college proper. Owing to the vast extent of the territory and its scattered population, it has been almost impossible to secure good school privileges for every settlement, or even for some of the larger towns. This department, through its special and regular classes, enables pupils to supplement the deficiencies of their home schools, or to secure more complete and thorough instruction in the branches commonly taught in the grammar and high schools.

For admission to the lowest regular (B) class of the preparatory department, candidates must give satisfactory evidence of having completed the work of the sixth grade as outlined in the course of study for the public schools of New Mexico and authorized by the Territorial Board of Education. This work is as follows:

1. Arithmetic.—An equivalent of the work covered by White's Complete Arithmetic to Denominate Numbers (p. 112), including Common and Decimal Fractions and United States Money.

2. Language.—Reed and Kellogg's Graded Lessons in English completed, or an equivalent.

3. Geography.—Through the study of Asia in the Natural Advanced Geography (p. 143) or an equivalent.

4. Reading.—An equivalent of the work covered by McGuffey's Fifth Reader.

5. Spelling.—Through Part II, of Reed's Word Lessons.

Special Classes.—For pupils who are at least sixteen years of age and who are sufficiently prepared to recite in some studies with a regular class but are deficient in other studies, special classes will be formed, suited to their needs. These are designed for those persons whose school privileges have been lacking and for those Spanish speaking students who would be admitted to a regular class, if their knowledge of English were greater.

Further information regarding requirements for admission may be obtained by addressing the principal.

For entrance to the higher classes candidates must give satisfactory evidence of having completed the work of grades below the class they seek to enter.

Strict adherence to these requirements will be enforced.

Instruction in free-hand drawing is provided for all pupils. The course presents the study of form and drawing which includes the subjects of construction, representation, and decoration. The work advocates a practical development of the factors of the organism itself,—the hand, the eye, and the brain,—and thus leads pupils to look upon drawing as an important means of awakening and conveying thought in the other subjects of the school work.

Daily instruction is given in vocal music by a special teacher. All pupils are required to attend these classes.

The aim of the department is to develop courteous manners and studious habits in the pupils. While strict discipline will be maintained, the students, as far as possible, are placed on their honor and self-government is encouraged. This, we believe, will tend to develop those qualities necessary to good citizenship.

COURSE OF STUDY OF THE PREPARATORY DEPARTMENT

Junior Preparatory Class

FIRST HALF YEAR	SECOND HALF YEAR
Algebra	Algebra
Grammar and Composition	Grammar and Composition
Arithmetic	Physiology
Civics	Freehand Drawing
Freehand Drawing	Physical Geography
Physics	

Elementary Division

A CLASS	B CLASS
Arithmetic	Arithmetic
Grammar and Composition	Grammar and Composition
United States History	Geography
Reading	Reading
Spelling	Spelling
Writing	Writing
Freehand Drawing	Freehand Drawing

For the Junior Class the following books will form the basis for composition work: Goldsmith's Vicar of Wakefield; Tennyson's Princess, Lancelot and Elaine, The Passing of Arthur, and Gareth and Lynette; Lowell's The Vision of Sir Launfal; Scott's Ivanhoe, and The Lady of the Lake; Coleridge's The Ancient Mariner; George Eliot's Silas Marner; Irving's Life of Goldsmith.

The lower classes will be furnished with a list of library books from which each member will be expected to select and read at least two books during each term of the year.

MATERIAL EQUIPMENT

The Main Building or College Hall

The main building is a brick structure of two stories with stone basement surrounded by a cement area. It is trimmed with a gray stone and has a heavy rough stone foundation. It is well built and cost $25,000. It contains thirteen rooms, all of which are furnished and in constant use. The building is supplied with water and is lighted by electricity. On the first floor are the library and the president's and the registrar's offices, as well as a number of recitation rooms. On the second floor, besides several class rooms, is McFie hall, which is used for class exercises, lectures, and similar purposes, and will seat a large audience.

THE LIBRARY

MISS BAKER

The different college libraries have an aggregate of about 14,000 books, 11,000 pamphlets and 1,500 public documents. In addition to these they subscribe to 103 periodicals and several dailes, and receive many magazines and papers as gifts. The books are selected by specialists, and are bought with a view to making them especialy valuable as a reference library. This collection is grouped into general, departmental, and text-book libraries.

	General	Reference	Magazines	Totals
Agriculture and Horticulture............	193	16	72	281
Biology	511	26	91	628
Chemistry..........................	208	71	123	402
Domestic Science	40	....	2	42
Engineering..................	356	22	103	481
English..........	26	34	....	60
Mathematics..............................	166	9	11	186
Military.................................	109	....	....	109
Preparatoy.	156	20	....	176
Soils................	86	....	....	86
Spanish..................................	128	79	....	207
Text books..........................	5,501	....	....	5,501
General Library..........................	3,420	588	784	4,792
Totals........................	10,900	865	1,186	12,951

Station Bulletins	6,136
Documents U. S. Department of Agriculture	2,684
Miscellaneous Documents	2,380
Totals	11,200

Personal assistance and suggestions upon all matter relative to the library will be given by the librarian and the student assistant to all who desire such help.

Departmental Libraries

Each department has its own library which is open during the working hours of the department. Books may be drawn from these libraries by consulting the professor in charge. Each department has an author catalog to its own books, and each of its volumes is represented in the dictionary catalog in the general library by an author, a subject, and a title card. The departments subscribe to 59 maganines.

Free Text-Book Library

Text-books are furnished to all students after they have made a deposit of $2.50 with the registrar. These books are drawn out upon written order from the several instructors. Students are charged for unreasonable damage to all books used by them during the year.

The following periodicals are either in the library or in the offices of the special departments.

*Agricultural Advertising.
*Agricultural Epitomist.
*Agricultural Experiments.
American Blacksmith.
American Chemical Journal.
*American Cultivator.
*American Dairyman.
*American Fertilizer.
American Florist.
*American Grange Bulletin.
*American Housekeeper.
American Journal of Sociology.
American Machinist.
American Naturalist.
*American Poultry Journal.
*American Range Bulletin and Scientific Farmer.
*American Sheep Breeder.
*American Sugar Industry and Beet Sugar Gazette.
*American Swineherd.
Analyst.
Army and Navy Register.
Atlantic Montly.
Beet Sugar Gazette.
Blanco y Negro.
Bookman.
Botanical Gazette.
*Breeder's Gazette.
*Brick.
Bulletin Torrey Botanical Club.
Business Man's Magazine and Book-keeper.

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*Gift.

Business World.
*California Cultivator.
Carpentry and Building.
Cassier's Magazine,
Catholic World.
Century Magazine.
Chemical News.
*Colman's Rural World.
Cosmopolitan.
*Cotton Seed.
Country Life.
Critic.
Current Literature.
*Dairy.
Delineator.
*Desert Farmer.
Designer.
Dial.
*Digit.
Educational Review.
*El Agricultor Mexicano.
*El Fenix.
Electric Journal.
Electric Age.
Electrical World and Engineer-monthly ed.
Electrical World and Engineer-weekly ed.
Elgin Dairy Report.
*Engineering Magazine.
Engineering News.
Engineering World.
España Moderna.
Etude.
*Farm and Fireside.
*Farm and Floral World.
*Farm and Ranch.
*Farm and Fireside.
*Farm Fireside.
*Farm Home.
*Farm Stock Journal.
*Farm Journal.
*Farm Life.
*Farm Poultry.
*Farm, Stock, and Home.
*Farm Journal.
*Farmer's Advance.
*Farmer's Call.
*Farmer's Guide.
*Farmer's Review.
*Farmer's Voice.
*Farmer's Voice and Rural Outlook.
*Farmer's Wife.
Field and Farm.
*Flour Trade News.
Forestry and Irrigation.
Free Library of Philadelphia: monthly list of public documents.
*Fruit Grower.
Gardening.
*Gleanings in Bee Culture.
*Good Housekeeping.
Harper's Bazar.
Harper's Monthly.
Harper's Weekly.
*Hoard's Dairyman.
*Holstein Friesian Register.
*Homestead.
House Beautiful.
*Indiana Farmer.
*Insect World.
International Quarterly.
International Studio.
Irrigation Age.
*Journal of Agriculture, St. Louis.
Journal of the American Chemical Society.
*Journal of Education.
Journal of the London Chemical Society.
*Journal of Pedagogy.
Journal of the Society of Chemical Industries.
Journal U. S. Cavalry Association.
*Kansas Farmer.
*Kimball's Dairy Farmer.
Knowledge.
Ladies' Home Journal.
Le Bon Ton.
Library Journal.
Life.
Little Chronicle.
*Live Stock Journal.
*Live Wire.
*Locomotive.
*Louisiana Planter.
McClure's Magazine.
*A. C. McClurg and Co's Monthly Bulletin.
*Macmillan and Co's Monthly List.
Manual Training Magazine.
Masters in Art.
Masters in Music.

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*Gifts.

Mathematical Gazette.
*Metropolitan and Rural Home.
*Modern Farmer.
*Midland Farmer.
*Miner Manufacturer.
*Mining Magazine.
*Missouri Agricultural College Farmer.
*Modern Miller.
Modern Priscilla.
Monthly Cumulative Book Index.
*Natal Agricultural Journal and Mining Record.
*National Farm and Stock Grower.
*National Farmer.
*Nebraska Farmer.
*New York Tribune Farmer.
*New York Times Saturday Review.
*New Zealand Dairyman.
North American Review.
*Ohio Farmer.
*Oklahoma Farm Journal.
Orange Judd Farmer.
*Oregon Agriculturist.
Our Times.
Outlook.
Out West.
*Pacific Dairy Review.
*Pacific Tree and Vine.
*Pacific Fruit World.
*Pattern Maker.
*Peter Henderson's Catalogs.
Phonographic Magazine.
Photo-miniature.
Pictorial.
Plant World.
*Planter's Journal.
Political Science Quarterly.
Popular Astronomy.
Popular Science Monthly.
*Poultry Husbandry.
Power.
Practical Farmer.
*Prairie Farmer.
*Prairie Farm and Home Magazine.
Public Opinion.
Publishers' Weekly.
*Pure Products.
Quarterly Journal of Economics.
Reader's Guide.
*Reliable Poultry Journal.
Review of Reviews.
Rhodora.
*Rural Magazine.
*Rural New Yorker.
Saturday Evening Post.
Science.
Scientific American and Supplement.
Scribner's Magazine.
*Southern Farm Magazine.
*Southern Planter.
*Southwestern Farmer and Breeder.
St. Nicholas.
*Strawberry.
Student's Journal.
Stenographer.
Success.
*Successful Farming.
*Successful Poultry Journal.
*Sugar Beet.
System.
Table Talk.
Torreya.
*Town and County Journal.
Texas Farmer.
Trained Nurse.
Typewriter and Phonographic World.
*Up to Date Farmer.
*West Virginia Farm Review.
Western Fruit Grower.
*Western Poultry Journal.
*Woman's Magazine.
Woodcraft.
World's Work.
Youth's Companion.

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*Gifts.

The following newspapers are regularly received and put on file in the general library.

*Albuquerque Citizen.
*Carlsbad Argus.
*Chicago Drover's Journal.
Chicago Tribune.
*Cloudcraft Silver Lining.
*Colfax County Stockman.
*Deming Grapic.
*El Labrador.
*El Nuevo Mexicano.
*El Republicano.
*El Tiempo.
*La Luz.
*La Voz Pública.
*Las Cruces Citizen.
*Las Vegas Optic.
*New Mexican Review.
*New York Times.
*New York Times Review.
*New York Tribune Farmer.
*Otero County Advertiser.
*Portales Times.
*Raton Range.
*Red River Prospector.
*Rio Grande Republican.
*Roswell Register Tribune.
*San Juan County Index.
*Santa Fé New Mexican.

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*Gift.

Science Hall

This is a large two story brick building, situated north of the main building. It contains eleven large rooms, and five smaller ones, besides hallways. The lower floor is occupied by the departments of Chemistry and Domestic Science, while the upper floor furnishes quarters for the departments of Physics and Soil Physics, and Biology and Geology. All the class work of these departments is done in this building, and the Experiment Station work in chemistry, botany, and soil physics is carried on here.

Engineering Buildings

These buildings, two in number, are located south of the Main building. They comprise, besides two large recitation rooms and hall, commodious rooms for wood work, machine work, foundry, and blacksmithing; an electric light plant; and a 40-horse power steam plant. These buildings are well equipped for engineering work.

Women's Hall

This is a brick building, situated on the College Farm. It contains a large dining hall, a large parlor, a smaller reception room, a music room, the matron's room, a kitchen, etc., besides bath rooms and twenty-five well lighted and ventilated sleeping rooms, all nicely furnished. About sixty people can be accommodated in the building.

Other Buildings

Back of the main building are the feed rooms and horse sheds. These are for the horses of the students and professors.

An adobe farm building erected at a cost of about $2,000 is located near the center of the farm. The greenhouse and the sheds for the storing of farm implements and machinery are located near the farm building. An adobe corral has recently been added to the farm equipment.

GENERAL INFORMATION

The College of Agriculture and Mechanic Arts offers a great deal to the young people of New Mexico. Its courses of study and equipment are now equal to those of similar colleges in most of the older states and students can get a very thorough training here in any of the leading lines of practical education. New schools generally make greater efforts than the older ones and the energy put forth and the instruction given are often superior.

In the smaller colleges like this, the student comes into closer personal contact with the professor and receives more personal attention and direction in his work than is possible in larger institutions. Parents are requested to make a careful investigation of this college and learn fully of the excellent opportunities it offers before deciding to send their children elsewhere.

Agricultural College, N. M., is the postoffice and Mesilla Park the general freight and express office of the college.

There is now a good elementary public school at Las Cruces, the course of study of which connects with that of the preparatory department of the college; so that parents who desire to live in the neighborhood of the college for the sake of giving their older children its educational advantages will also have at hand a good school for their younger children.

Strangers will now find satisfactory temporary accomodations at Mesilla Park near the depot. They should then report to the president who will assist them in finding boarding accomodations.

Students should be present the first day of the term. The necessity of this is too seldom realized. New students and those desiring re-examination should report on the day named for this work.

Fellowships

The board of regents determined in 1900 to establish one or more fellowships, of the anual value of $300, open to graduates of the college, and in default of competent graduates who have specialized in the particular line of work required of the fellow, to graduates of other colleges. These fellowships will be tenable for one or two years, but not for a longer period, and will be awarded to promising graduates who desire to pursue their studies in one or more lines beyond the undergraduate curriculum, and who are willing and able to devote half of their time to assisting in the work of one of the departments of the college. The appointment will be made upon the joint recommendation of the head of the department in which the fellow is to serve and of the president of the college. A fellow will not be permitted to carry more than two full courses of study, without the express permission of the head of his department and the president of the college.

Fees and Deposits

Entrance Fee. Each year all students who are citizens of New Mexico are charged a fee of five dollars ($5.00); students from other states or territories in the United States are charged a fee of five dollars ($5.00) per term. Students who are not citizens of the United States are charged a tuition fee of seventeen dollars ($17.00) per term or fifty dollars ($50.00) per year.

Book Deposit. All students are required, each year, to deposit two and one half dollars ($2.50) with the registrar as a guarantee that the proper treatment will be given to college text books and other property lent to them. At the close of the year or whenever the student withdraws from the college, his deposit, less charges for damages to or loss of college property, is returned to him. Students who are notoriously careless with their text books may be required to increase their deposits.

Chemistry Deposits. Students in all chemistry, mineralogy, and assaying courses (except Chemistry A) must have on deposit with the registrar at the beginning of each term, the sum of five dollars ($5.00) to cover breakage of apparatus used in this work. Students in furnace assaying must, in like manner, have on deposit ten dollars ($10.00) to cover cost of crucibles, scorifiers, and other apparatus used up or broken. At the end of the year or upon withdrawal, these deposits less breakage, etc., will be returned.

Chemistry Fee. At the beginning of each term each student taking furnace assaying will be charged a fee of five dollars ($5.00), to cover cost of gasoline and fluxes used.

Mechanical Engineering Deposits. Students taking any practice work in the Engineering Department, will be required to deposit with the registrar, at the beginning of each year, five dollars ($5.00) to cover breakage or damage, and must make additional deposits at any time, to meet similar expenses in excess of this amount. These deposits, less charges for breakage or damage, will be returned at the end of the year or upon withdrawal.

Military Fee. Each student who is classified for the military course will be required to deposit with the Registrar the amount necessary to purchase a complete uniform when he commences this work. The regular fatigue uniform will cost about $16.50 complete. This includes suit, cap, and gloves, as adopted for use of the cadets.

Music. Instruction in music is charged for by the lesson.

Horse-stall Rent. Twenty-five cents (25c) per term is charged each student or teacher using a horse-stall. This fee is used to keep the sheds clean.

Text Books

Text books are furnished by the college. They will either be sold to the student at cost, or lent. Students who are able should purchase their books. Many of them will be needed after leaving school, and they can be made to form the nucleus of a private library, which every student should be encouraged to collect.

Stationery

As the college is nearly three miles distant from any store dealing in stationery, it has been found necessary, for the accommodation of students, to carry at the college a small line of articles, such as paper, pencils, pens, etc., which are sold to students, for cash only, at a small profit.

Boarding

Although the college, as such, does not furnish board and rooms for men, the accommodations for all classes of students are becoming quite varied and ample. The college has attracted to its immediate vicinity private families, many of whom accommedate some students with board. The price for board, room, light, etc., in families, varies from $16 to $25 per month; table board in families about $15 per month. Not far from the college campus are cottages for rent. These are usually occupied by families who have moved in and taken temporary residence for the purpose of educating their children. This is a very satisfactory solution of the boarding problem.

A boarding club for young men—a private enterprise—has been established under the general supervision of the faculty. The buildings are sufficient to room and board about forty students. Table board is furnished to some who do not room in this building. Rooms are furnished with study-tables, but students are expected to furnish their own bedsteads or cots, bedding, towels, etc. Rooms, however, will be fully furnished for those who desire it. The food is abundant and healthful. The cost for board and room will not exceed $15.00 per month when students furnish their own bedsteads and bedding.

The Women's Hall.

The Women's Hall, situated on the college farm, will accommodate about sixty students. The price of board per calendar month, with room, light, heat, and the washing of a dozen pieces including house linen, is $17.00 when two young women occupy a room, payable in advance on the first of each month. Young women who desire to occupy a room alone will be charged $20.00 per month. The rooms are comfortably furnished, but each student must provide comforts, blankets, sheets, pillow-slips, towels, napkins, napkin ring, and two laundry bags. The student's name must be plainly marked on all the pieces.

The students are under the general supervision of the faculty, and in charge of the matron. For further particulars apply to the matron.

Estimate of Necessary Expenses

Various college incidentals................	$ 10 00..	$ 10 00
Nine month's board and lodging at $15 to $20.	135 00 to	180 00
Laundry, per month at $1.00...............	9 00..	9 00
	$154 00 to	$199 00
Male students who are required to take military tactics, for uniform..............		$ 16 50

Paid Labor

There is a considerable amount of labor on the farm, in the shops, and in the laboratories, that can be performed by students, and the policy is to give it to students rather than to others. Some students have been able to earn enough during the past year to pay their expenses; but those doing so have had constant employment in some subordinate position. The college can not undertake to furnish work for all students who wish it, or need it, in anything like sufficient amount to pay expenses; and even if it could, the student's time is needed chiefly for study, recitation, and practice. Still, many worthy and industrious students pay a considerable part of their expenses by labor. Preference is given to those who are most trustworthy and meritorious, and who are regular and punctual in attendance, and correct in deportment. This labor is paid for at the rate of from 7½ to 20 cents per hour; but the faculty reserves the right to limit the amount of work any student may do.

Religion

All students will be trained in the principles of morality, but no sectarian teaching will be tolerated in the college. Entire freedom of choice is given the student in selecting the church he will attend. Services are held at the following churches every Sunday: Roman Catholic, Presbyterian, Methodist, Baptist, and Episcopalian. At the Presbyterian church are held meetings of the Young People's Society of Christian Endeavor. With the Methodist church is connected the Epworth League. Recently a branch of the International College Y. M. C. A. has been established at the college and regular meetings are held on Sunday.

Discipline and Government

It should be impressed upon the youth of New Mexico that by the creation of the College of Agriculture and Mechanic Arts there has been provided for them the fullest and best opportunities to secure a practical education. Students who enjoy the advantages here offered should realize that to forfeit these privileges on account of their misuse or abuse is a matter of the most serious concern to them. No elaborate code for the conduct of students is prescribed. The college rules are mainly for the purpose of facilitating the college business. As regards behavior, students are expected to conduct themselves as ladies and gentlemen. If, after a fair trial, the influence of any student is found to be detrimental to scholarship, morals, or good order, dismissal will follow.

For some time past the students have been encouraged to take an active part in the administration of the college. The student body is organized, and there is a Student Conference Committee consisting of representatives from the student congress and from the faculty. This committee discusses informally all matters of student concern, whether proposed for discussion by the faculty or by the students, and recommends to the faculty and to the student congress such lines of action as seem to it to be wise.

College Rules

As already stated, it is the policy of the faculty of this institution to deal with students in the most liberal manner possible. It is assumed that the college students in an institu-of this character are of sufficient age and advancement to know how to conduct themselves property as ladies and gentlemen. In view of this policy this institution has no written rules relating to the conduct of student. Any violation of the usually accepted code of proper conduct is dealt with as the particular case may demand.

In order that students may know how to attend to the business requirements of the institution in regard to their studies, the library, college organizations, etc., quite a full list of rules of procedure are given below. These rules, while designed primarily for college students, apply, in many instances, to students of the preparatory department as well. In all special cases the preparatory department has its own rules.

A

Matriculation, etc

1. A student when first entering college, or at first term of any subsequent year, must present himself:

To the President

who fills out the student's "admission card," and sends student with a "term assignment card"

To the Course of Study Committee

which assigns studies, completes the "term card," and issues class cards to the student, who goes

To the Registrar,

gives him the class cards, pays fees called for by his courses, takes receipt, and then reports

To the Instructors,

and shows each his receipt. If the receipt is satisfactory, the instructor gives the student an order for text-books, etc., and then assigns the lesson. The student then goes

To the Librarian,

and, showing her his receipt and the book order, filled and signed by the several instructors, gets books, and surrenders order to the Librarian.

2. At the beginning of the second and third terms, a col-

lege student who has previously entered will procure a term assignment card from the *Registrar*, who will fill out the personal part of the card before giving it to the student, and the student will then go to the *Course of Study Committee* and the procedure will from this point be the same as at the beginning of the year, except that the student need not go to the Registrar again unless he is assigned to a course which requires the payment of a special fee or deposit.

3. *Students* must preserve the receipts they receive at the beginning of the year, and show them to their instructors at the beginning of each term as a condition of admission to class. If the receipt is lost, a duplicate may be obtained from the Registrar upon payment of a fee of 10 cents.

4. *An Instructor* must not admit a student to his class, even though he have a class card, unless he shows the Registrar's receipt or receipts for all fees and deposits required of members of the college taking the course in question.

Grading, Examination, and Classification of Students

1. The system of grading is on a scale of 100.

2. At the end of term, unless special action be taken by the faculty to the contrary, examinations are held in all subjects, or parts of subjects, taught during that term.

3. The lowest passing grade is 70. Students making a grade of 85 in their daily class work, may, at the discretion of the instructor, be excused from examination.

4. The method of determining the average daily grade, except in the matter of absences, is left to the instructor in charge of the case.

5. In determining the average daily grade, an amount is deducted for unexcused absences, proportional to the amount of work missed.

Excused absences count the same as those unexcused, unless the work missed is made up to the satisfaction of the instructor in charge.

6. In making up the term grade in any subject, in case an

examination has been held, the average daily grade is added to the examination grade and the sum divided by two. In case no examination is held at the end of a term, the average daily grade is taken as the final mark for term.

7. Students who receive a term grade of 70 or more in any subject, shall be passed; those below 55 shall be dropped from the class.

8. A student conditioned in any subject has a chance to remove his condition by taking a re-examination in the subject. If he fail in the re-examination, or fail to take the same at the specified time, credit for the work will be given only after he has repeated the subject in class and made a passing grade on the same.

9. All re-examinations for failures in entrance examinations shall take place at or near the close of the first term. Re-examinations for failures in studies shall take place at or near the close of the next term, except that students failing in the last term of the year must be re-examined at the beginning of the next year.

10. All re-examinations for failures during the first two terms of the senior year must occur before the beginning of the third term of that year.

11. A student conditioned in any subject may be allowed to proceed with his class, with the chance of removing the condition at the end of the next term; but if he then fail to pass a satisfactory examination, he shall be dropped from the class.

12. If a student, at the end of any term, fail in every subject or in every subject save one, he may be at once dropped to a lower class, or from college, as the faculty may decide.

13. Whenever a student, by action of the faculty, is put into a lower class, he may be required to repeat all the studies of that class, whether he has previously passed in them or not.

14. No student taking a regular course is allowed to take up any subject in that course until he has passed in all preceding work necessary to fit him for that subject. Neither

will such student be excused from any prescribed work in that course except by special action of the faculty.

15. No special student is allowed to enter any class unless, in the opinion of the instructor in charge, he is thoroughly prepared in all necessary preceding branches.

16. In case of any conflict in the course of study, unless otherwise ordered by the faculty, the higher subject shall give way to the lower.

17. Regular college students are classified as Freshmen, Sophomores, Juniors, or Seniors, according to the number of hours work they have completed. Thus if the number of hours required per week is 20, the number of weeks per year 26, and the number of years 4, then the minimum number of hours required for graduation would be 20x36x4,—2880. In this case, a student would be classified as a Freshman until he has completed 720 hours, and thereafter as a sophomore until he has completed 1,440 hours, etc.

In the above scheme, two hours of drawing, laboratory work, shop practice, or field work, are counted as equivalent to one hour of recitation.

18. No grade from another school will be accepted for advanced standing in college courses in this institution, except by special action of the faculty. A student who desires credit for work done at schools ranking lower than this institution, must pass a satisfactory examination or present other evidence that the work has been thoroughly done.

19. A record is kept of the work of each student, and at the end of each term, reports showing the grades, etc., of the different students, are sent to their parents or guardians.

20. When a student shall have been assigned to any class or branch of study and shall have entered on the same, he can withdraw honorably from such class only by presenting to the instructor the written consent of the President of the College.

C

Graduation

1. Seniors having conditions at the beginning of the third term of the senior year will not be considered candidates for a degree.

2. A student, in order to graduate, must have completed the full amount of work included in one of the college courses of study, or an equivalent of the same which has been accepted by the faculty.

3. Under rules adopted by the associated agricultural colleges and agreed to by the War Department, students who have been classified for the Military Department shall not be graduated unless they have pursued the Military Course satisfactorily for two years.

4. Each candidate for graduation is required to prepare a thesis, which shall be passed upon by a committee consisting of the head of the department in which the work was done, the professor of English, and the president.

5. Any graduate may be required by the faculty to give an exercise on commencement day, consisting of an oration or an extract from or an abstract of the thesis.

6. Subjects for theses must be presented to the faculty for approval not later than the end of the second term of the senior year.

7. All theses must be handed in for inspection by the committee referred to under section 3, before the beginning of the senior vacation, and the finished thesis must be filed with the registrar not later than the beginning of the second week of the senior vacation.

8. A thesis in order to be finally accepted, must be clearly written or type-written, on good linen paper 8x10½ inches, bound, and a copy delivered to the president for permanent preservation.

9. Seniors are given a vacation during commencement week and the week immediately preceding.

D

Absence and Tardiness

1. A male student who is absent or tardy must state the reason for such absence or tardiness to the different instructors concerned, the first time he meets said instructors in class thereafter. If no such statement is rendered the student will be marked zero for the work he missed.

2. A female student must, in the same manner, present to the different instructors concerned, not later than the second time she meets said instructors in class thereafter, a written statement from the dean of women as to whether an absence or tardiness has been satisfactorily explained.

3. Any student who is absent from a regular examination at which he or she should be present, shall be required to present to the instructor in charge a satisfactory excuse for the same, in default of which said student shall be given a grade of zero and dropped from the class.

E

The Library

1. Subject to the following rules, books and periodicals may be drawn from the library by making the necessary application to the librarian.

2. *(a.)* Temporary assignment of library books may be made to the different departments of the institution by the librarian, subject to the approval of the president. Books so assigned may be recalled at any time.

(b.) Indefinite assignment of the library books and periodicals may be made to the different departments by the library committee, subject to the approval of the faculty. Books and periodicals so assigned can be recalled only by faculty action.

3. No library book, unless in a department library, may be kept out for more than two weeks consecutively, For each day over time a fine of three cents is imposed.

4. Encyclopedias and similar works of reference must

not be taken out of the library, except by special permission of the librarian.

5, *(a.)* Current numbers of periodicals may not be kept out of the library longer than over night, except during the period from Friday evening to Monday morning. *(b)*. The first seven issues of the dailies, the last four issues of the weeklies, and the last two issues of the monthlies are considered current numbers.

6. Current numbers of periodicals may not be drawn sooner than one hour before the library is closed and must be returned by 9:00 a. m. of the day on which rule 5 calls for their return.

7. Periodicals other than current numbers, will be governed by the same rules as library books.

8. No book or periodical assigned to any department may be drawn without the express consent of the head of that department.

F

College Organizations and Athletics

1. The public exercises of all societies, classes, athletic teams, or other organizations connected with the college, are subject in time, place, and character, to the approval of the president. All rooms assigned for the use of societies or other organizations shall be occupied subject to the faculty's control.

2. All societies, classes, athletic teams, or other organizations connected with the college are required to notify the faculty in writing of all dates desired for public exercises. When possible, such notices shall be given at least two weeks before such exercises are to be given.

3. The faculty reserves the right of passing upon the constitution and by-laws, and all subsequent amendments to the same, of all societies organized in connection with the college.

4. The first Friday in May is a holiday set apart for Athletic Sports, and is known as Field Day.

G

Miscellaneous

I. It is the duty of any professor or officer of the college to note and rebuke violations of good order.

2. Carriages must be so arranged about the horse stalls that an open passage is left between the carriages and stalls, and horses must not be tied in places where they block the passage to the stalls.

3. The faculty may, at any time, deprive a student, whose college work is unsatisfactory, of the privilege of taking part in any team or public athletic work.

4. Smoking, or the carrying of lighted pipes, cigars, or cigarettes, is not permitted in or about any of the buildings of the college and experiment station.

DONATIONS AND CONCESSIONS

During the past history of the college, a number of things have been given to the institution and exceptional concessions have been made upon the prices of material which it was necessary to buy. A complete list of such articles as have been received to date, has been published in previous catalogs. Appended will be found a list of all gifts received during the scholastic year of 1905–1906, for which the management of this institution wishes hereby to express the most sincere gratitude.

The various departments of the institution will gladly receive any gifts of material, specimens, books, separates, and apparatus, which may be added to our museum, library, or teaching equipment, and will most willingly pay transportation, if notified of the charges. Particularly is this true of mineralogical, geological, archæological, zoological, or botannical material from any part of the Territory. Single specimens are of small value when thrown about the house, but a museum is made up of just such single specimens collected in one place and properly arranged. We need a good museum and already have some considerable collections to which we are adding all the time. We also have case room for such material, and men to take care of it properly. All communications on this subject should be addressed to the president and all material sent us should bear the name and address of the sender.

DONATIONS FOR 1905-1906

To the Library

Cincinnati Museum Association.
  24th annual report.
  Catalogue of exhibition of painting by Robert Blume.

Colonel Frost.
  New Mexico blue book.
  New Mexico mines and minerals.
  Land of sunshine.

Prof. Hiram Hadley.
  School laws of New Mexico 1905.
  Compilación de leyes de escuela del Territorio de Nuevo México.

Smithsonian Institution.
  Proceedings U. S. national museum.
  Report Smithsonian institution.
  Bulletins.

Superintendent of Public Documents, Washington.
  170 volumes.

U. S. Department of Agriculture.
  All documents issued in 1905-1906.

Hon. Isidro Armijo.
  152 volumes—Specifications and drawings of patents.
  6 miscellaneous books.

Secretaría de Fomento, México.
  Bulletins para 1905-1906.

Mr. W. A. Sutherland.
  Loan exhibit of valuable curios from China, Japan, and the Philippine Islands.

Lowle Mfg. Co.
  Life and Services of Benjamin Franklin.

The Class of 1906.
  Heavy Mission Oak Library Table.

To the Department of Biology

64 sheets of plants from Santa Rita, N. M.

Specimens of summer and winter plumage of the Ptarmigan, from Alaska,

Mr. O. B. Metcalfe, Silver City, N. M.

165 sheets of plants from near Pecos, N. M.
Mrs. W. A. Bartlett, Clayton, N. M.

To the Agricultural Department

1 pkg. Alfileria Seed,...............Mr. Geo. L. Blecher, Globe, Ariz.
1 box Gopher Death,....Fort Dodge Chemical Co., Fort Dodge, Iowa.
1 Centrifugal Pump, American, free for test,
American Well Works, Aurora, Ill.
1 Twentieth Century Road Grader,
The White City Grader Co., White City, Kas.

To the Horticultural Department

1 Fairbanks-Morse 22 HP Gasoline Engine and
1 No. 6 Fairbanks-Morse Centrifugal Pump,
Transferred from Agricultural Department.
Grape Cutting of four varieties,.....Mr. Henry Bole, Barstow, Texas.
10 plants *Ampelopsis quinquefolia* and
10 plants *Ampelopsis Vetchii*,.....Prof. Paul Evans, Mount Grove, Mo.
3 pkts. Seeds of Tabasco Chili,......Mr. G. Richter, New Iberia, La.
3 varieties Chili Seed,......United States Department of Agriculture.
1 Lou Dillon Cultivator,.............Schaible Mfg. Co., Eliria, Ohio.
3 kinds of Citrange plants
United States Department of Agriculture.

STUDENT ORGANIZATIONS

The Student Congress

This is an organization which is especially designed to bring the students together to discuss matters of general interest to the student body as a whole, and to promote college spirit. The opinions and desires of this congress on matters relating to the welfare of the students, when presented to the faculty, usually receive consideration; although the faculty uses its best judgment as to when it shall consult the congress. There is a certain power delegated to the congress, but it is only advisory, and in order to receive any consideration, recommendations must be presented to the faculty through the Student Conference Committee. This committee is always ready to meet the executive committee of the congress, to consider the wishes of the students, and to report all such requests, with recommendations, to the faculty for action.

All students of the institution are members of the congress. The members of the executive committee are selected once a year, and consist of a President and a Secretary. The following held office during the past year:

John George Miller	President
Ruth Coleman	Secretary

The Columbian Literary Society

The society was organized October 25, 1891, under the name of Alphi Chi. In 1892 this was changed to Columbian, since which time the society has made steady and prosperous growth. Until about the middle of 1894–5 only men were admitted as members, but since that time women have had equal membership privileges. The object of the society is to promote and encourage conscientious and practical literary and musical work by readings, essays, papers, debates, vocal and instrumental music, and such other exercises as the committee on program may prescribe. Each year the society gives a public entertainment, generally of a dramatic character, and the drill and training is of great value to those who take part. The self-possession, knowledge of parliamentary law, and skill in debate, which faithful members of this society gain, are of inestimable value in after life.

To be eligible to membership a student must be pursuing work in (1) any of the regular four year college courses, (2) either of the two year short courses, (3) either of the stenography courses, or (4) the senior preparatory class. A fee of two dollars is charged each new member, which fee admits him to the society and gives him one year's subscription to the college paper. Dues of fifty cents are paid each succeeding term.

Regular meetings are held on Friday afternoon of each week, and an evening meeting is held once each term. Visitors are allowed during the literary part of the meetings. Officers are elected at the beginning of each term. The officers for the third term are:

E. A. Graham	President
V. Davila	Vice-President
Lacy Crosby	Recording Secretary
Gavino Mata	Corresponding Secretary
U. G. Brown	Treasurer
A. A. Brown	Marshall
Grace Koontz	Critic
Merle Blinn	Vice-Critic
Lila Ellis Bertha Kutzner E. Salaverria	Literary Committee

The Minerva Literary Society

Although a comparatively new organization, having been in existence only since November 1904, the Minerva Literary Society is now the largest in the college. This society gives literary programs once each week and from these the members derive great benefit. Not only are they helped by the debates, readings, musical selections, and recitations, but by participation in the work of the society they get that quality of self-reliance which is the corner stone of all success.

The Minerva, like all similar organizations, has had its ups and downs, but we are pleased to say that it has successfully overcome all obstacles. During the past year, the social side of the society's work has been in evidence. Numerous events of pleasing remembrance have added zest to the interest felt by its members. All students carrying collegiate work are eligible to membership.

The officers of the third term are:

Herbert Alleman	President
Jas. Poe	Vice-President
Eva Dougherty	Secretary
Phillip Dessauer	Treasurer
Jacob Sweet	Critic
Jas. Steel	Vice-Critic
Robert Espy	Marshall
Jesse Mundell Myrtle Kiehne Herbert Stewart	Literary Committee

The Stenograpers' Association of New Mexico

This society is composed of members of the stenography department of the college, and also all former students of this department. No one else is eligible to membership.

The society was organized two years ago and has been very flourishing from its organization. Matters of interest to stenographers are considered by this Association.

The colors of the society are crimson and white, and a neat pin has been adopted, consisting of a crimson letter "S" on a white background.

The officers of the third term are:

J. A. Anderson	President
Estelle Kiehne	Vice-President
Susie Connolly	Secretary and Treasurer
A. E. Schuster	Critic
Ethel Hyatt	Vice-Critic

The Lincoln Literary Society

In the fall of 1902, the students of the Preparatory Department organized a literary society. which has been continued with much enthusiasm and success. The society is formed by the most enterprising students. They elect their own officers, make their programs, and have charge of their meetings, the principal and teachers simply acting as advisory members.

Every Thursday afternoon, the last hour is given to the discussion of some stated question, each member being allowed an opportunity to take part in the debate. The larger part of every third Friday afternoon is devoted to a regularly prepared program, consisting of recitations, compositions, debates, and music. The society has been very helpful in training for public speaking and in obtaining knowledge of parliamentary rules.

The officers of the last term of school are as follows:

Richard Elliott	President
Ed. Hall	Vice-President
Blanche Wilson	Secretary
Florence Nabours	Treasurer
Stanley Johnson	Critic
John Powers	Vice-Critic
May Exter Roland Harwell Oscar Wilson Baylus Love Earl Wilson	Board of Directors

The Collegian

The New Mexico Collegian is the name given to the paper published by the Columbian Literary Society. It is a monthly publication devoted to the chronicling of college events and happenings—local, social, and of a literary character—and contains from 30 to 40 pages. The entire management is taken by those students who are members of the C. L. S. and the staff is elected at the beginning of each term so that as many students as possible may have the practical experience in journalistic work. At the end of the year a souvenir Commencement number is issued, replete with pictures, local matter, and special articles of interest to the students and their friends. The subscription list includes practically all the students of the college, the alumni, and a large number of outside friends.

Essays and literary compositions of special value written by any student in connection with his college work are published in the Collegian, and this fact tends to make the students strive to do good work. The expenses of publication are largely paid from the money received from advertisements and subscriptions. The training in finance and business methods which this gives to the students is of inestimable value.

Staff

The staff of the third term of 1905–6 is as follows:

E. A. Graham	Editor in Chief
Geo. Helde	Assistant Editor
Jesse Mundell	Local Editor
Grace Koontz	Social Edttor
Myrtle Nabours	Exchange Editor
V. Davila	Athletic Editor
Jay Stoneking	Business Manager
Allen Graham	Assistant Manager

The Athletic Association

Fourteen years ago (1893) the students organized an Athletic Association for the development of athletics and such sports as would tend to keep the student physically sound and in good health while pursuing his college work. The Association has grown steadily and has expanded until it is the best organized and equipped, both with athletic goods and grounds, and with funds to carry on its work, of any like organization in the Territory.

The spirit with which the students carry on this work is most commendable and is one of the greatest factors in the student life in bringing them and the members of the faculty more in touch with each other. The efficiency of the Association is shown by its work. It has taken the lead in all matters pertaining to athletics in the territory. Besides engaging successfully with outside teams in foot ball in the fall, basket ball in the winter, and base ball in the spring, it has taken the lead in track and field work. All but two of the territorial records are held by the college. The fourth intercollegiate track meet was held last year at Albuquerque The first one, as well as the third, was held on the home grounds. In all of these meets the college has carried off the honor easily. The college track team now permanently holds the silver-loving cup presented to the Intercollegiate Association by Hall and Learnard, of Albuquerque, having won a majority of the events in the last three intercollegiate track-meets; the conditions being that it should be won at one meet and successfully defended twice in succession thereafter.

The policy of the faculty of the institution is to allow the students to do as much work as possible, thus permitting the development and the fostering of that feeling of pleasure from well executed plans and the cultivation of that sense of responsibility, resourcefulness, and assurance so much needed in the rounding out of a student.

The college campus is the best in the territory. It is excellently situated and equipped with good fields for foot ball and base ball, with tennis courts, a quarter mile running track, and a straightaway course for the 100 yard and 220 yard dashes.

The first foot ball team won match games this year against the University team, against the School of Mines team, and against the Fort Bliss team; the scores being large in favor of the college. Neither the first nor second teams were scored on during the season.

The second team won the first of a series of games with the El Paso High School team for the Susen Cup.

The girls' basket ball team holds the territorial championship. The boys' basket ball team lost a hotly contested game with the University team.

The cost of membership in the association is an admission fee of one dollar ($1.00), paid but once, and a monthly assessment of 25c. Special rates are made to women who become members. A member of the association has access to the foot ball and base ball suits, tennis courts and balls, the usual outfit for field sports, and a shower bath in the grandstand.

The officers of the association for the years 1905–6 are:

U. G. Brown	President
Geo. Helde	Vice-President
Ruth Coleman	Secretary
J. E. Mundell	Treasurer
J. R. Macarthur	Auditor
J. W. Bouts	General Manager
Oscar C. Snow, B. S. '94	Member Advisory Board
Rex H. Hart, B. S. in Ag. '05	Member Advisory Board

The Young Men's Christian Association

During the early part of the school year, the Young Men's Christian Association was organized by Mr. Titus, the district secretary stationed at El Paso, Texas. Quite a number of the young men have been interested in the work of the Association and regular Bible study meetings have been held on Sunday mornings during the year. These meetings have been conducted by several members of the faculty and some of the ministers of Las Cruces have assisted in the work in a way that has been much appreciated. Mr. Titus has been present on several occasions and has addressed large audiences each time.

The officers for the past year are:

George G. Helde	President
Jesse Mundell	Vice-President
John F. Blinn	Secretary
U. G. Brown	Treasurer

ALUMNI

Officers of Alumni Association

For 1905-1906.

President	R. R. Larkin
Fist Vice-President	C. L. Post
Second Vice-President	Frances French
Secretary	Fanny Ford
Treasurer	Lottie Sweet

Class of 1894

Fabian Garcia, B. S., Professor of Horticulture and Horticulturist to the Experiment Station, New Mexico College of Agriculture and Mechanic Arts, Mesilla Park, N. M.

Mrs. Agnes Herbert, (née Williams), B. S., Housewife, Hondo, N. M.

R. Roy Larkin, B. S., Superintendent of Las Vegas Public Schools, Las Vegas, N. M.

Lemuel C. McGrath, B. S., Merchant, Lordsburg, N. M.

Oscar C. Snow, B. S., Ranchman, Mesilla Park, N. M.

Class of 1895

Mrs. Jessie C. Rhodes, (née Casad) B. S., Housewife, El Oro, State of Mexico, Mexico.

Class of 1896

Mae Gilmore, B. S., Alto, New Mexico.

Alfred M. Holt, M. S., Deceased, 1901.

Albert H. Peterson, B. S., Mechanic, Chicago, Ill.

Clarence E. Rhodes, B. S., Superintendent Cyanide, Dos Estrellas Mining Co., El Oro, Mexico.

Class of 1897

Joseph F. Bennett, M. S., with the Sullivan Machinery Co., El Paso, Texas.

Elgin B. Holt, B. S., with the Rock Island Townsite Co., El Paso, Texas.

Arthur E. Williams, B. S., Deceased 1905.

Class of 1898

Edwin E. Casey, B. S., U. S. V. Deceased, 1898.

Duval G. Cravens, B. S., Head of Department of Mathematics and

First Assistant Head Master, The Mooney School, Murfreesboro, Tenn.

Charles E. Mead, B. S., Druggist, San Marcial, N. M.

Ivah R. Shallenberger, (née Mead), B. S., Housewife, San Marcial, N. M.

Isaac H. Stanley, B- S., Silver City, N. M.

William A. Sutherland, B. S., Superintendent of Filipino Students in the U. S. Bureau of Insular Affairs, Washington, D. C.

Lottie Sweet, B. S., Teacher, Las Cruces, N. M.

George M. Williams, B. S., Student in Economics, Stanford University, Palo Alto, California.

Class of 1899

Edward J. Coe, B. S., Director and General Manager of the Glencoe Fruit Farm, Glencoe, N. M.

Walter E. Holt, B. S., U. S. Customs Service, El Paso, Texas.

John D. Tinsley, B. S., Professor of Physics and Soil Physicist, Vice-Director of the Experiment Station, New Mexico College of Agriculture and Mechanic Arts, Mesilla Park, N. M.

Class of 1900

William Cory Meeker, B. S., A. B. Wooster University, 1902; Student in Theology, Princeton Theological Seminary, Princeton, N. J.

Charles Lewis Post, M. S., U. S. Deputy Mineral Surveyor, Las Cruces, N. M.

Archie Bruce Sage, B. S., Assist. Professor in Mechanical Engineering, New Mexico College of Agriculture and Mechanic Arts, Mesilla Park, N. M.

Halbert E. P. Thomas, B. S. Deceased.

Class of 1901

Leah Nora Case (née Newberry), B. S., Housewife, Las Cruces, N. M.

Minnie Wilson Sutherland (née Newberry) B. S., Housewife, Washington, D. C.

Alfredo Marcos Sanchez, M. S., Soil Physicist, Bureau of Agriculture, Manila, P. I.

Matthew Steel, M. S., Soil Expert, Bureau of Soils, U. S. D. A., Kingston, R. I.

Class of 1902

Theron Catlin Bennett, B. S., Manager of city retail branches for the Victor Kremer Music Publishers, Chicago, Ill.

Elizabeth Koger (née Coleman), B. S., Housewife, Las Cruces, N. M.

Elizabeth C. Foster, B. S., Teacher, Las Cruces, N. M.

Frances French, B. S., Teacher, Las Cruces, N. M.

James Stanislaus Macgregor, M. S., Assistant in Engineering Laboratory, Columbia University, New York City.

Class of 1903

Fannie Ford, B. S., Teacher, Las Cruces, N. M.

Maude McFie, B. S., Graduate Student, Univ., of Michigan, Ann Arbor.

Orrick B. Metcalfe, M. S., Silver City, N. M.

Ina M. Nelson, B. S., Student in Stanford University, California.

Class of 1904

Clarence D. Case, B. S., Ranchman, Las Cruces, N. M.

Lauren W. Case, B. S., Ranchman, Las Cruces, N. M.

Lute Foster, B. S., At home, Las Cruces, N. M.

Mrs. Orpha Bennett Hoblit, B. S., Housewife, Mesilla Park, N. M.

Pearl C. Miller, B. S., Student in Domestic Science, Drexel Institute, Philadelphia, Pa.

Rowena Mott, B. S., Teacher, Las Cruces, N. M.

Class of 1905

Thomas B. Green, B. S. in Ag., Deceased, 1905.

Annetta May Harney, B. S., Teacher, Santa Rosa, N. M.

Reginald H. Hart, B. S. in Ag., Graduate Student and Assistant in Soil Physics, New Mexico College of Ag. & Mech. Arts.

Benjamin F. Nabours, B. S. in Mech. Engin., Ranchman, Three Rivers, N. M.

Rafael Ramirez, B. S. in Ag., Graduate Student and Assistant in Irrigation. New Mexico College of Ag. & Mech. Arts. Now Professor of Animal Husbantry in La Escuela Particular de Agricultura, Juarez, Mex.

Harry H. Schutz, B. S., Special Student in Agriculture, Cornell University, Ithaca, N. Y.

CATALOG OF STUDENTS

Graduate

Hart, Reginald H	El Paso, Texas
Ramirez, Rafael	Mesilla Park

Senior

Blinn, Merle A	Kelly
Blinn, John F	Kelly
Boutz, John W	Topeka, Kansas
Brown, Archie A	Gallup
Brown, Ulysses G	Gallup
Bruno, José A	Guayama, Porto Rico
Coleman, Ruth	Mesilla Park
Given, Guy C	Hillsboro
Graham, Earl A	Patterson
Miller, Charles D	Denver, Colo.
Peet, Bertha	Monticello, Ind.

Junior

Bloodgood, Dean W. A	Kingston
Davila, Vicente	Sabinas, Mexico
Graham, Allen G	Patterson
Helde, George	Central
Kinsell, Ralph C	Santa Fe
Miller, John George	Santa Fe
Newberry, H. Clay	Las Cruces
Pattison, Williams	Gallup
Quintero, Jose	Mesilla
Standley, Paul	Springfield, Mo.
Stoneking, Jay B	Rosedale

Sophomores

Dessauer, Phillip	Las Cruces
Edwards, Eaton	La Mesilla
Endicott, William	Lake Valley
Gallacher, William	White Oaks
Gilliam, Rex E	Mesilla Park
Hornbrook, Earle C	Elm Grove, W. Va.
Johnson, Clarence	Gallup
Mata, Secundino	Juayua, Salvador, Central America

Mundell, Jesse E	Capitan
Poe, James R	Mesilla Park
Quintero, Fernando	Las Cruces
Steel James A	Las Cruces
Stover, Maggie M	Elk
Sweet, Jacob Allen	Las Cruces

Freshmen

Alleman, Herbert N	Chihuahua, Mexico
Bruesch, Fred	Central
Crosby, Lacy	Ft. Stockton, Texas
Friend, Lois	Las Cruces
Gonzales, Juan A	Monclora, Mexico
Hism, John	Tularosa
Hutchison, Leah	El Paso, Texas
Hyatt, John	Cooks
Kutzner, Bertha	Socorro
Latham, Annie	High Rolls
Love, Luna	Sierra Blanca, Texas
McVicker, Alexander	Gallup
Nabours, Myrtle V	White Oaks
Ramirez, Juan	Las Cruces
Salaverria, Eduardo	Juayua, Salvador, Central America
Stewart, Herbert C	Mesilla Park
Thompson, Claude C	Hood River, Oregon
Uranga, Armando R	Las Cruces
Walker, Lancelot	Mesilla Park

Special

Bartlett, Mrs. Florence	Los Angeles, California
Brown, Isabel M	Gallup
Buvens, Olive	Mesilla Park
Edwards, Margaret	Mesilla Park
Ellis, Lila N	Muncie, Ind.
Kiehne, Myrtle	Socorro
Koontz, Grace	Muncie, Ind.
Mata, Gabino, Jr	Juayua, Salvador, Central America
Morse, Una C	Independence, Ia.
Thompson, Gay	New Orleans, La.
Wade, Edward C	Las Cruces
Walker, Louise	Mesilla Park

Stenography

Anderson, John A	Hillsboro
Ascarate, Frank M	Las Cruces
Connolly, Susie	Deming

Curren, Ella	Tucumcari
Davis, Leland	El Paso, Texas
Dougherty, Evelyn	Santa Fe
Ford, Lela R	Las Cruces
Hewitt, James A	El Paso, Texas
Hism, Chas. B	Tularosa
Hyatt, Ethel	Cooks
Kiehne Estelle	Socorro
Lucero, Francisco F	Las Cruces
Mullen, Mrs. Dee	El Paso, Texas
Romero, Rafael	Chihuahua, Mexico
Schuster, Arthur	El Paso, Texas
Sheppard, May	Douglas, Arizona
Stover, Norah Lee	Mesilla Park
Wentz, Walter A	Salem, Mo.
Wilson, Clarence B	El Paso, Texas

PREPARATORY DEPARTMENT

Senior Preparatory

Ames, Walter C	Las Cruces
Baker, Stuart K	Las Cruces
Burke, Edna	Mesilla Park
Campbell, William E	Bower Mills, Mo.
Espy, Robert	Van Horn, Texas
Forwood, May	Las Cruces
Foster, Doris	Las Cruces
Fraker, Arthur	Ocate
Hines, Raye	Mesilla Park
Knight, Hubbard	Tularosa
Powers, Jack	Ft. Stockton, Texas
Quesenberry, Elizabeth	Las Cruces
Redding, Edward	Cooney
Redding, Vivian	Cooney
Romero, Carlos	Chihuahua, Mexico
Smith, Ray K	El Paso, Texas
Walker, Susie	Mesilla Park
Young, Donald W	Las Cruces

Junior Preparatory

Bonem, Hannah	San Marcial
Burch, Colita	Las Cruces
Carrera, Emile P	Las Cruces
Fountain, jr., Albert J	Las Cruces

Griffith, Lena	Socorro
Isaacks, Emett	Las Cruces
Johnson, J. Stanley	New York City, N. Y.
Lane, Austin R	San Marcial
Llewellyn, Ida May	Las Cruces
MacIver, Ivander	Mesilla Park
Mandel, Bertha	Mesilla Park
Poe, Archie E	Mesilla Park
Powers, John	Santa Rita
Quesenberry, George Robinson	Las Cruces
Sharpe, Roscoe	Artesia
Skidmore, Frank B	El Paso, Texas
Stewart, Rupert L	Mesilla Park
Stover, Allie	Elk
Taylor, Robert E	Coalora
Wade, Wilson	Las Cruces
Wilson, Blanche	Kingston
Wilson, Earl J	Kingston

A Class

Allen, Carl G	Leopold
Babcock, May	Kelly
Beckwith, Wm. H	El Paso, Texas
Boone, Zuma	Las Vegas
Buvens, Inez	Mesilla Park
Buvens, James	Mesilla Park
Buvens, Robert	Mesilla Park
Cellar, Nellie	Mesilla Park
Clancey, Carolina	Puerta de Luna
Cowley, Arthur	Kingston
Dessauer, Numa R	Las Cruces
Elliott, Richard H	Cambray
Forwood, Samuel	Las Cruces
Gardiner, Otis J	Magdalena
Gray, Seaborn P	Capitan
Harwell, Roland	Santa Rita
Hirsch, Homer	Hillsboro
Hyatt, Alonzo	Cooks
Kearney, Perry	Cloudcroft
Keese, Oliver	Mesilla Park
Kelley, Frank	Water Canon
Kelley, Geo. L	Water Canon
Kelley, William	Water Canon
Lyon, Edwin B	Mesilla Park

Nabours, Florence	White Oaks
Quesenberry, Richard	Las Cruces
Rountree, Edna	Corona
Scoggins, Clifford	Las Cruces
Scott, Ben	Las Cruces
Watson, J. Frank	El Paso, Texas
Wilson, Oscar	Kingston

B Class

Acosta, Dionisio	Juarez, Mexico
Armstrong, Walter	Hachita
Baldwin, Jr., Harry F	New Orleans, La.
Bloodgood, Clyde	Kingston
Boyce, Bonnie	High Rolls
Buchoz, Harry G	El Paso, Texas
Buvens, Kathleen	Mesilla Park
Cellar, William	Mesilla Park
Cowell, Jay	Kelley
Davis, Nina E	Mesilla Park
Exter, May	Kelley
Fullerton, Elmer	Socorro
Gilliam, Carmen	Mesilla Park
Graham, Earl J	Engle
Heineman, Gresham	El Paso, Texas
Howard, William Sidney	Beeville, Texas
Kirwin, Mary J	Mesilla Park
Llewellyn, Jr., William H. H	Las Cruces
Lohman, Oliver	Las Cruces
Longbottom, John G	Lake Valley
McWilliams, Dewitt	Clifton, Ariz.
Nunn, Morris	Cooks
O, Lorenzo De La	Las Cruces
Pattison, Floyd	Weed
Posey, Robert	Cloudcroft
Powell, Roy	Ft. Davis, Texas
Roberts, Robert	Las Cruces
Russell, Rolla	Magdalena
Swisher, Edwin	Socorro
Uranga, Benigno	Mesilla Park

Special

Arrington, John	Farmington
Bates, Harris	Elk
Bruton, Edna	Socorro
Chavez, Eulalio	Chihuahua, Mexico

Edwards, Geo. W	La Mesilla
Hall, Edward	Nutt
Hall, James	Nutt
Hall, William	Nutt
Hitchins, John Albert	Chihuahua, Mexico
Love, Baylus	Sierra Blanca, Texas
Lucero, Luis	Las Cruces
Maloney, James	Las Cruces
Nunn, James P.	Lake Valley
Padilla, Jesus M.	Hillsboro
Pino, Ottie	El Paso, Texas
Richardson, Ellen	Hillsboro
Scoggins, Belle B.	Las Cruces
Sisneros. Andreas	Las Cruces
Smith, Lena	Cloudcroft
Sullivan. John D	Farmington
Talavera, Reynoldo	Chihuahua, Mexico
Wilson, Walton A	Alpine, Texas
Yumul, Wictoriano	Apalit, Pampanga, P. I.

MUSIC DEPARTMENT

Piano Pupils

Babcock, May
Blakesley, Fannie E.
Bonem, Hannah
Boone, Zuma
Buvens, Inez
Buvens, Olive
Combs, Geraldine
Coleman, Ruth
Connolly, Susie
Clancey, Carolina
Crosby, Lacy
Foster, Lute
Griffith, Lena
Hare, Mrs. R. F.
Hines, Raye
Hyatt, Ethel
Mata, Jr., Gabino
Nabours, Myrtle
Romero, Rafael
Rountree, Edna
Salaverria, Eduardo
Thompson, Claude
Walker, Louise
Wentz, Walter

Voice Pupils

Boone, Zuma
Brown, Minnie
Clancey, Carolina
Dougherty, Evelyn
Friend, Lois
Kiehne, Myrtle
Latham, Annie
Nabours, Florence
Peet, Bertha
Walker, Louise

List of Students Tabulated According to Classes

Graduates	2
Seniors	11
Juniors	11
Sophomores	14
Freshmen	19
Special (College)	12
Stenography	20
Senior Preparatory	18
Junior Preparatory	22
A Class	31
B Class	30
Special (Preparatory)	23
Piano Pupils	24
Voice Pupils	10
Total	247
Names repeated	30
Total	217

PROGRAM OF RECITATIONS

FIRST TERM: MORNING.

TIME	SENIOR PREPARATORY	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	STENOGRAPHY
8:30	English (T. W. Th. F.) Drawing (M.)	Geometry	Chemistry (T. Th.)	Physics	Hydraulics English (M) Dietetics (T. Th.) Agricultural Chemistry (W. F.)	Commercial Spanish
9:25	Algebra	English	Chemistry	Physics (F) Meteorology (M. W.)	Applied Mechanics Psychology	Advanced Stenography
10:20	Agriculture (M. W. F.) Cooking (T. Th.)	Spanish Horticulture (T. Th.)	English	Canning and Preserving (M W. F.) Milinery (T.)	Mineralogy	Stenography
11:15	Military Drill (M. W. F.) Cooking (T. Th.) Physical Culture (M. W. F.)	Military Drill (M. W. F.) Horticulture (T. Th.) Physical Culture (M. W. F.)	Military Drill (M. W. F) Physical Culture (M. W. F.)	Canning and Preserving (M. W. F.) Milinery (T.)	Mineralogy	Military Drill (M. W. F.) Physical Culture (M. W. F.)

PROGRAM OF RECITATIONS

FIRST TERM: AFTERNOON.

TIME	SENIOR PREPARATORY	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	STENOGRAPHY
1:00	Choral Class	Choral Class	Choral Class	Choral Class	Choral Class	Choral Class
1:30	History (M. T. W. Th.) Drawing (F.)	Latin	Trigonometry	Elementary Mechanics (M. T. Th. F.) English (W.) Pomology (M. T. W. Th.)	Rural Engineering (T. W Th.) English (F.) Valve Gears (F.) Agricultural Chemistry (M.) Dressmaking (M.)	
2:25	Carpentry (M. W. F.) Sewing (M. W. Th. F.) Floriculture (T.)	Woodturning (M. W. F.) Biology (M. W. F.) Mechanical Drawing (T. Th.) Livestock (T. Th.)	Pattern Making Spanish	Bench Work in Iron (M. W. F.) Graphic Statics (T. Th.) Pomology (Th.) Astronomy Entomology (M. W. F.)	Machine Shop (W. F.) Machine Design (T. Th.) Rural Engineering (Th.) Valve Gears (M.) Dairying (W. F.) Dressmaking (M.)	Stenography
3:20	Carpentry (M. W. F.) Floriculture (T. W. F.)	Woodturning (M. W. F.) Biology Mechanical Drawing (T. Th.)	Pattern Making Latin	Bench Work in Iron (M. W. F.) Graphic Statics (T. Th.)	Machine Shop (W. F.) Machine Design (T. Th.) Dairying.	Special Work.

PROGRAM OF RECITATIONS

SECOND TERM: MORNING.

TIME	SENIOR PREPARATORY	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	STENOGRAPHY
9:00	English (M. T. W. Th.) Horticulture (F.)	Geometry	Descriptive Geometry Spanish	Stock Feeding Physics	Applied Mechanics Plant Breeding (T. W. Th.) Home Sanitation (W,)	
9:50	English History (T W. Th. F.) Drawing (M.)	Spanish	Chemistry	Physics (F.), Astronomy (T. Th.) Mechanism (M. T. W. Th.)	Home Sanitation (M.) Rural Economics (T. W. F.)	Stenography
10:40	Cooking (T Th.) Drawing (F.) Sewing (W.)	English	Chemistry (M. W. F.) Mechanical Drawing (T. Th.)	Soil Physics (M. T. W. Th.)	Geology	Adv. Stenography
11:30	Military Drill (M. W. F.) Cooking (T Th.) Physical Culture (M. W. F.)	Military Drill (M. W. F.) Physical Culture (M. W. F.)	Mil. Drill (M. W. F.) Sewing (T. Th.) Mechanical Drawing (T. Th.) Physical Culture (M. W. F.)	Calculus Soil Physics (M. T. W. Th.)	Hist. Civil'n Thermodynamics (T. Th.)	Military Drill (M. W. F.) Physical Culture (M. W. F.)

PROGRAM OF RECITATIONS

SECOND TERM: AFTERNOON

TIME	SENIOR PREPARATORY	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	STENOGRAPHY
1:10	Choral Class	Choral Class	Choral Class	Choral Class	Choral Class	Choral Class
1:40	Algebra	Latin Horticulture (T. F.) Livestock (M. W. Th.)	English Prin. Breeding (M. W. F.) Soils and Crops (T. Th.)	Political Economy (M. T. W. Th.)	Dressmaking (M.) Electrical Engineering (T. W Th. F) Agricultural Chemistry (M. W. F.)	
2:30	Carpentry (M. W. F.) Sewing (T W. F) Horticulture (Th.)	Livestock (Th.) Forging Biology (M. W. F.) Horticulture (T.)	Surveying (M. T. Th. F) Cooking (M. W. F.) Sewing (Th.)	Machine Design (T. Th.) Cooking (M. T. W. Th.)	Dressmaking (M.) Agricultural Chemistry (M T. Th.) English (W. F.)	Stenography Commercial Spanish
3:20	Carpentry (M. W. F.) Horticulture (T. Th.)	Forging Biology	Surveying Cooking (M. W. F.) Sewing (T.) Mechanical Drawing (W.)	Machine Design (T. Th.) Pomology (M. W.) Cooking (M. T. W. Th.)	Metallurgy (M. T. W. Th.)	Spanish Stenography

PROGRAM OF RECITATIONS

THIRD TERM: MORNING.

TIME	SENIOR PREPARATORY	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	STENOGRAPHY
8:30	Military Drill (M. W. F.) Cooking (Th.) Hygiene (T.) Physical Culture (M. W. F.)	Military Drill (M W. F.) Physical Culture (M W. F.)	Military Drill (M. W. F.) Physical Culture (M. W. F.)	Physics	Engineering Structures Geology	Military Drill (M. W. F.) Physical Culture (M. W. F.)
9:25	Chemistry (M. T. W. F.) Cooking (Th.)	Solid Geometry	English	Physics (F.) Plant Physiology (M. T. W. Th.) Steam Boilers and Engines (M. T. W. Th.)	Electrical Engineering Chemistry of Foods (M. W. F.)	Commercial Spanish
10:20	Algebra	Latin Horticulture (M)	Chemistry (M. T. W. Th.) Cooking (F.)	English (F.) Plant Physiology (W.) Cooking (M. T. Th.)	English (M. Th.) Chafing-dish (W.)	Stenography
11:15	Botany (M. T. W. Th.)	Spanish Horticulture (M. W F.)	Chemistry (M. T. W. Th) Cooking (F.)	Calculus Cooking (M. T. Th.)	Chafing-dish (W.)	Advanced Stenography

PROGRAM OF RECITATIONS

THIRD TERM: AFTERNOON

TIME	SENIOR PREPARATORY	FRESHMAN	SOPHOMORE	JUNIOR	SENIOR	STENOGRAPHY
1:00	Choral Class	Choral Class	Choral Class	Choral Class	Choral Class	Choral Class
1:30	Sewing (M. F.)	English	Higher Algebra Latin Sewing (T. W. Th. F.) Soils and Crops (T. W. Th. F.)	Physiology (M. T. W. Th.)	Agricultural Chemistry (M. W. F.)	Stenography
2:25	Livestock (M. W. F.)	Biology (M. W. F.) Carpentry (M. W. F.) Mechanical Drawing (T. Th.) Livestock (T. Th.)	Med. and Mod. History Foundry (T. Th. F.) Mechanical Drawing (M. W.) Bacteriology (T. Th.) Olericulture (M. W. F.)	Astronomy (T. Th.) Machine Shop (M W. F.) Machine Design (T. Th.) Olericulture (M. W. F.)	Engineering Laboratory (M. W. F.) Agricultural Chemistry (M. W. F.) Dressmaking (Th.)	Spanish Stenography
3:20	English (M. T. W. Th.) Livestock (F.)	Biology Carpentry (M. W. F.) Mechanical Drawing (T. Th.)	Spanish Foundry (T. Th. F.) Mechanical Drawing (M. W.) Olericulture (M.) Forestry (W. F.)	Machine Shop (M. W. F.) Machine Design (T. Th.) Olericulture (M.) Landscape Gardening (T. Th.)	Engineering Laboratory (M. W. F.) Practical Agriculture (M. W. F.) Veterinary Elements (T. Th) Dressmaking (Th.)	Office Practice

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New Mexico College of Agriculture And Mechanic Arts.

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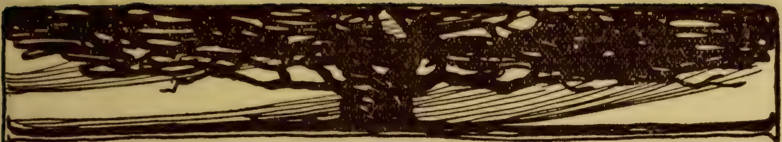


Vol. I College Record No. I

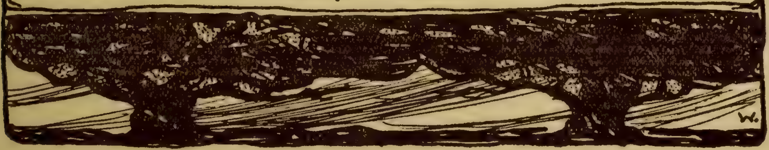
SEVENTEENTH
ANNUAL CATALOG.

New Mexico College
of Agriculture
and Mechanic
Arts

Agricultural College.

· Catalog of students for 1906 ~ 1907 ·
· Announcements for 1907 ~ 1908 ·

Published Quarterly by the College.
July 1907.



Calendar for 1907-1908

* * *

September 3, 1907. Entrance examinations.

September 3-4, 1907. Matriculation of students and assignment of work by instructors.

November 25-27, 1907. Examinations at the end of the first term.

November 28, 1907. Thanksgiving holiday.

December 2, 1907. Classification of students and assignment of work.

December 21, 1907. Christmas Vacation begins.

January 5, 1908. Christmas Vacation ends.

February 22, 1908. Washington's Birthday—holiday.

March 2-4, 1908. Examinations at the end of the second term.

March 9, 1908. Classification of students and assignment of work.

May 1, 1908. Field Day.

May 20-22, 1908. Examinations at the end of the third term.

May 24-27, 1908. Exercises of Commencement Week.

Board of Regents

R. E. McBride, President, Las Cruces.
J. M. Webster, Sec'y and Treas., Hillsboro.
Jose R. Lucero, Las Cruces.
R. R. Larkin, Las Vegas.
Hiram Hadley, Las Cruces.

* * *

Advisory Members

Hon. George Curry, Governor of New Mexico, Santa Fe.
Hon. J. E. Clark, Terr. Supt. of Instruction, Santa Fe.

FACULTY

Luther Foster, M. S. A., Iowa State College. President and Professor of Political Economy and Psychology.

Clarence T. Hagerty, B. S., Notre Dame University, 1890; M. S., ibid., 1895. Professor of Mathematics and Astronomy.

Elmer O. Wooton, B. S., Earlham College, 1889; A. M., ibid., 1896. Professor of Biology, and in charge of Geology.

Francis E. Lester,* Registrar and Principal of the Department of Stenography.

John Dabney Tinsley, B. S., New Mexico Coll. of Agr. and Mech. Arts, 1899. Professor of Physics.

John J. Vernon, B. Agr., Iowa State College, 1897; M. S. A., ibid., 1900. Professor of Agriculture and Superintendent of Grounds.

Merritt Lorraine Hoblit,† A. B., Kalamazoo College, 1901; A. B., University of Chicago, 1901. Professor of Spanish and Latin.

Raleigh Frederick Hare, B. S., Alabama Polytechnic Institute, 1892; M. S., ibid., 1893. Professor of Chemistry.

John R. Macarthur, A. B., University of Manitoba, 1882; Ph. D., University of Chicago, 1903. Professor of English and History.

Fabian Garcia, B. S., New Mexico College of Agriculture and Mechanic Arts, 1894; M. S. A., ibid., 1905. Professor of Horticulture.

Eaton A. Edwards, Lieutenant Colonel U. S. Army, retired. Professor of Military Science and Tactics.

Charles E. Paul, S. B., Massachusetts Institute of Technology, 1900. Professor of Mechanical Engineering and Superintendent of Buildings.

Geraldine Combs.‡ Principal of the Preparatory Department.

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* Resigned December, 1906.
† On leave during 1906-07.
‡ Resigned June, 1907.

"Since we are what we are by the impacts of those who surround us, those who surround themselves with the highest will be those who change into the highest."—Henry Drummond.

Caroline W. Daniels, M. A., Ripon College. Associate Professor of English and Dean of Women.

Orpha Bennett Hoblit,†† B. S., New Mexico College of Agriculture and Mechanic Arts, 1904. Professor of Spanish and Latin.

Margaret H. Haggart, B. S., Kansas State Agricultural College, 1905. Professor of Household Economics.

John Oliver Miller,* B. S., University of Colorado, 1899. Registrar and Assistant in the Department of Stenography and Typewriting.

G. Eugene Lain,* M. A., Southern Iowa Normal School. Principal of the Department of Stenography and Typewriting.

Burton P. Flemming,† B. S., Utah Agricultural College, 1900; M. E., Cornell University, 1906. Professor of Irrigation Engineering.

P. E. McClenahan,‡‡ Ph. B., Iowa State University, 1905; A. M., ibid., 1906. Principal of the Preparatory Department.

Other Officers of Instruction

Archibald Bruce Sage, B. S., New Mexico College of Agriculture and Mechanic Arts, 1900. Associate Professor in Mechanical Engineering and Instructor in Electrical Engineering.

Elizabeth E. Shimer, M. E., State Normal School, Kutztown, Pa., 1891. Assistant in Preparatory Department.

John M. Scott,‡ B. S., Kansas Agricultural College, 1903. Assistant in Animal Husbandry.

Florence J. Foster, B. S., Montana Agricultural College, 1896. Associate Professor of Household Economics.

Martha A. Bennett,**Student in the Chicago Auditorium Conservatory and Chicago Musical College under Walter Keller, Frederic Grant Gleason, and Felix Borowski, and as a private pupil under Wilhelm Middleschulte and Carl A. Preyer. Instructor in Piano Music.

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†† For 1906-07.

* Appointed December, 1906.

† Appointed March, 1907.

‡‡ Appointed June, 1907.

‡ Resigned in January, 1907.

** Resigned in March, 1907.

Maud Morrison,* Graduate of the Illinois Conservatory, 1898; and student under Francis Fischer Powers, New York City, and Frederick W. Root, Chicago. Instructor in Vocal Music.

Singleton Reynolds Mitchell, B. S., Purdue University, 1902. First Assistant in the Chemical Department.

John George Miller, B. S. in M. E., New Mexico College of Agriculture and Mechanic Arts, 1907. Assistant in Mechanical Engineering.

Jennie A. Thomas, State Normal School, Oshkosh, Wisconsin. Assistant in Preparatory Department.

John A. Anderson. Assistant to the Registrar and in the Department of Stenography and Typewriting.

A. Cleveland Hartenbower, B. S., Oklahoma Agricultural and Mechanical College, 1905. Assistant in Agronomy.

John B. Thompson,† B. S., Kansas State Agricultural College, 1905. Assistant in Horticulture.

Lucy M. Lewis, A. B., University of Illinois, 1905; B. L. S., ibid., 1906. Librarian and Assistant in English.

George M. Lummis,* B. S. A., Iowa State College, 1903. Assistant in Physics and Soil Physics.

Laurenz Greene,‡ B. S., Kansas State Agricultural College, 1906. Assistant in Horticulture.

Pierre D. Southworth,** B. S. A., University of Minnesota, 1906. Assistant in Animal Husbandry.

Paul C. Standley, B. S., New Mexico College of Agriculture and Mechanic Arts, 1907. Assistant in Biology.

Ralph B. Deemer, B. S., New Mexico College of Agriculture and Mechanic Arts, 1907. Second Assistant in Chemistry.

Maria H. Crowe, Housekeeper of Women's Hall.

Etta Green, College Stenographer.

Elizabeth Oliver, Station Stenographer.

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* Resigned in June, 1907.

† Resigned in November, 1906.

‡ Appointed in November, 1906.

** Appointed in March, 1907.

FACULTY COMMITTEES

* * *

COURSES OF STUDY

C. T. Hagerty, *Chairman;* E. O. Wooton, C. E. Paul. J. J. Vernon, P. E. McClenahan.

CATALOG

E. O. Wooton, *Chairman;* J. R. Macarthur, J. O. Miller.

JUDICIARY

M. L. Hoblit, *Chairman;* C. T. Hagerty, R. F. Hare.

BUILDINGS AND GROUNDS

C. E. Paul, *Chairman;* J. J. Vernon, F. Garcia.

ENTERTAINMENT

C. W. Daniels, *Chairman;* F. Garcia, R. F. Hare.

EXTENSION WORK AND ADVERTISING

J. O. Miller, *Chairman;* G. E. Lain, J. D. Tinsley.

STUDENT CONFERENCE

E. A. Edwards, *Chairman;* F. Garcia, M. H. Haggart.

LIBRARY

J. D. Tinsley, *Chairman;* J. R. Macarthur, E. O. Wooton, L. M. Lewis, *ex officio.*

ATHLETICS

J. J. Vernon, *Chairman;* J. D. Tinsley, C. E. Paul.

LITERARY SOCIETIES AND PAPER

J. R. Macarthur, *Chairman;* M. L. Hoblit, P. E. McClenahan.

Note: The president is ex officio member of all committees.

Agricultural College

ON February 28, 1899, the Twenty-eighth Assembly of New Mexico approved an act establishing the New Mexico College of Agriculture and Mechanic Arts.

As defined by the act "The Agricultural College created and established by this act shall be non-sectarian in character, and devoted to practical instruction in agriculture, as well as a thorough course of instruction in all branches bearing upon agriculture and other industrial pursuits."

History

"The course of instruction of the college hereby created shall embrace the English language, literature, mathematics, philosophy, civil engineering, chemistry, animal and vegetable anatomy and physiology, the veterinary art, entomology, geology, political, rural, and household economy, moral philosophy, history, mechanics, and such other sciences and courses of instruction as shall be prescribed by the regents of this institution of learning."

The act also gives assent to an act of Congress, known as the Hatch Act, approved on March 2, 1887, whereby Agricultural Experiment Stations may be established as departments of the land grant colleges.

The college was formally opened on Tuesday, March 10, 1890.

* * *

Location

THE New Mexico College of Agriculture and Mechanic Arts occupies a beautiful and commanding position just to the east of Mesilla Park, Dona Ana county. A few miles to the east rise the Organ Mountains, one of the most picturesque ranges of the Rockies. To the west at a distance of three miles flows the Rio Grande. Mesilla Park is a rapidly increasing and thriving little town containing several stores, a comfortable hotel, a public school, and an Episcopal church. It is situated on the main line of the Santa Fe railway, running from Albuquerque to El Paso. The latter city, which is only forty miles distant and about an hour's journey on the train, is the junction of no less than nine railroad lines. This fact makes the college easily accessible from all parts of the Territory and its borders. To the north of the college, at a distance of about two and a half miles, is the town of Las Cruces, which has a population of about four thousand. Here are to be found several educational institutions

"Of all the changes taking place the most significant is the growing desire to make the acquirement of knowledge pleasurable rather than painful."—Herbert Spencer.

ricultur-
ollege

consisting of a public school, a large convent conducted by the Sisters of Loretto, and two mission schools. Regular church services are held in Las Cruces by the Methodist, Presbyterian, and Roman Catholic denominations, and arrangements are made whereby college conveyances take the students to and fro on Sundays. The glorious weather throughout the whole year and the healthfulness of the Mesilla valley, together with the presence of the college and its preparatory school, make this portion of the territory a most desirable locality for parents who wish a combination of climatic and educational advantages. The community is morally a most wholesome one. There is no saloon in Mesilla Park, and a recent act of the legislature has made it illegal to open one within a mile of the limits of the college property. This will keep these undesirable features at a distance of almost two miles from our main buildings.

* * *

Income

The revenues of this College are derived from the following sources:

1. Students' fees.
2. Sale of farm products.
3. Rentals and other income from Territorial Land endowment.
4. Territorial tax and special appropriations.
5. The United States, under Congressional Act of August 30, 1890—the Morrill fund.
6. The United States, under Congressional Act of March 2, 1887—the Hatch fund.
7. The United States, under Congressional Act of March 16, 1906—the Adams fund.
8. The United States, under Congressional Act of March 16, 1907—the Nelson fund.

The money received from fees and farm products has, so far, been very limited, and has been applied to the payment of such expenses as are not provided for by act of Congress.

The last Territorial Legislative Assembly passed a bill appropriating $16,000 annually for the next two years to cover administrative and other expenses. It also provided for the sale of $30,000 in bonds, the proceeds of such bonds to be used in erecting some much needed new buildings.

Agricultural College

The Morrill fund was created "for the more complete endowment and support of the Colleges of Agriculture and Mechanic Arts in the several States and Territories." The College received this fund first in 1890, to the amount of $15,000; the fund is now $25,000. This fund can be applied *only* to "instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural, and economic sciences, with special reference to their application in the industries of life, and to the facilities for such instruction."

The Hatch fund was established for the maintenance of Agricultural Experiment Stations as departments of the Agricultural Colleges. This appropriation must be used for "paying the necessary expenses of conducting investigations and experiments, and printing and distributing the results." Bulletins showing progress must be printed each quarter, and be sent to each newspaper in the Territory and to all farmers who apply for them. This fund first became available for this College in 1889-90, to the amount of $10,000. Since July 1, 1890, $15,000 a year have been received. *After the first year, only five per cent. of this fund may be used to erect, enlarge, or repair buildings for the use of the Experiment Station; and no part of it may be applied to the expenses of instruction or to general college purposes. It must be applied exclusively to the carrying on of agricultural experiments and to the dissemination of the results thereof.*

By the provisions of the Adams Act, the college receives an additional appropriation "for the more complete endowment and maintenance of the Agricultural Experiment Stations." Of this appropriation $5,000 was received in 1907, and $2,000 additional will be paid each year until the annual appropriation amounts to $15,000. This appropriation can only be used for "paying the necessary expenses of conducting original researches or experiments bearing directly on the agricultural industry of the United States." The provisions of this act are more binding than those of the Hatch act. The money must be used for experimentation and research alone: even the expense of printing the results of such research must be paid from some other fund. None of this fund may be spent for buildings or rentals, library, demonstrational, or administrative work.

"Life is not for work alone, but to be enjoyed; the great thing to learn is how to enjoy your work and how to help others to enjoy theirs.—Pastor Wagner.

Agricultural College

The Nelson fund is intended to be additional to the Morrill fund and may be expended for similar purposes. By this appropriation the College will receive $5,000 in 1908, and $5,000 additional each year until the amount reaches $25,000.

The theory of the federal government in accordance with which these appropriations have been made, is that the State or Territory must provide the buildings and grounds and keep them in repair, and must also provide for all the general administrative expenses of the college, and that the federal appropriations are to be used only for the purposes of paying teachers and supplying the necessary books and apparatus for teaching the specific subjects mentioned in the acts, and for carrying on experimental and research work as prescribed by the acts. The interpretation of the meaning of the acts is vested in the authorities at Washington. *Practically none of the funds may be used for building or repairs, nor for ordinary running expenses, such as salaries of administrative officers—as president, clerk, librarian, etc.,—equipment of the library, and ordinary furniture, stationery, printing, etc., nor for teaching any subject not expressly mentioned in the words of the acts.*

* * *

Endowment

By an Act of Congress, approved June 21, 1898, this College was given 100,000 acres of public land, the proceeds of which are to form a permanent endowment fund. This land has all been located, a small portion has been leased, and the remainder will be either leased or sold as soon as possible.

The institution is now receiving a small income from this source.

* * *

Requirements for Admission

CANDIDATES for admission to the *Freshman* year will be admitted without examination upon completion of the subjects of the Senior Preparatory year, or on a certificate showing that the same or an equivalent amount of work has been completed at any of the following High Schools:

Albuquerque High School.
Deming High School.
El Paso High School.
Las Vegas High School.
Clayton High School.
Alamogordo High School.
Carlsbad High School.
Santa Rosa High School.

Raton High School.
Roswell High School.
Gallup High School.
Artesia High School.
Santa Fe High School.
Portales High School.

Other candidates must pass examinations in the following subjects:

English.—Scott & Denney's Elementary English Composition, or its equivalent. No applicant will be admitted who is unable to write English fairly correct in spelling, punctuation, paragraphing, etc., and free from gross grammatical and rhetorical errors. Some knowledge of literature is also required.

General History.—Myer's General History or Sheldon's General History, or the equivalent.

Algebra.—Milne's Academic Algebra through logarithms, or its equivalent.

Physics.—Harrington's Grammar School Physics, or its equivalent.

Physical Geography.—Davis' Physical Geography, or its equivalent.

Physiology.—Hutchison's Physiology and Hygiene or its equivalent.

Civil Government.—Young's Studies in Civics, or its equivalent.

Free-hand Drawing.—At least a year's thorough work.

Arithmetic—Wentworth's Practical Arithmetic, or its equivalent.

History of the United States.—McMaster's School History of the United States, or its equivalent.

Geography.—Redway and Hinman's Natural Advanced Geography, or its equivalent.

Students coming from other colleges whose requirements for admission are substantially equivalent to those of this college may be admitted to corresponding classes here provided they bring certificates showing amount of work completed. Other candidates for advanced standing will be examined in the subjects prescribed for admission, and also in the undergraduate studies with which they desire to be credited.

All applicants for admission must furnish satisfactory evidence of good moral character. The President and Faculty reserve the right to reject students who appear to be too immature to live away from home.

"Give the best persistently a chance at you"
—Henry Churchill King.

"The very spring and root of honesty and virtue lie in the felicity of lighting on good education."—Plutarch.

Courses of Study

"If education cannot be identified with mere instruction, what is it? What does the term mean? I answer, it must mean a gradual adjustment to the spiritual possession of the race. Those possessions may be variously classified, but they certainly are at least fivefold. The child is entitled to his scientific inheritance, to his literary inheritance, to his aesthetic inheritance, to his institutional inheritance, and to his religious inheritance. Without them he cannot become a truly educated or a cultivated man."—Nicholas Murray Butler.

A Course in Household Economics

FRESHMAN YEAR

First Term

1 Mathematics (Geom. Pl.),* 5.
1 English, 5.
4 Spanish or 4 Latin, 5.
1 Biology (Zool.), 2+6P.

Second Term

2 Mathematics (Geom. Pl.), 5.
2 English, 5.
5 Spanish or 5 Latin, 5.
2 Biology (Zool.), 2+6P.

Third Term

3 Mathematics (Geom. Sol.), 5.
3 English, 5 .
6 Spanish or 6 Latin, 5.
3 Biology (Botany), 2+6P.

SOPHOMORE YEAR

First Term

4 Mathematics (Trig.), 5.
4 English, 5.
1 Chemistry, 3+4P.
3 Horticulture (Floriculture), 2+2P.
Elective, 2.

Second Term

5 English, 5.
2 Chemistry, 2+6P.
1 House. Econ. (Textiles), 1.
2 House. Econ. (Drafting), 2P.
4 House. Econ. (Dressmaking), 4P.
8 House. Econ. (Home Nursing), 2.
Elective, 3.

Third Term

6 English, 5.
3 Chemistry, 8P.
6 Biology (Physiology), 5.
4 Biology (Bacteriology), 2.
4 House. Econ. (Dressmaking), 4P.
9 House. Econ. (Laundering), 2.

JUNIOR YEAR

First Term

7 English, 1.
1 Physics, 4+2P.
1 Astronomy, 5+2P.
5 House. Econ. (Millinery), 2P.
10 House. Econ. (Dom. Sci.), 2+6P.
Elective, 2.

Second Term

8 English, 1.
2 Physics, 4+2P.
1 Politcal Economy, 4.
2 Astronomy, 1+2P.
11 House. Econ. (Dom. Sci.), 2+6P.
Elective, 3.

Third Term

9 English, 1.
3 Physics, 4+2P.
3 Astronomy, 1+2P.
7 History, 5.
5 Horticulture (Olericulture), 2+2P.
12 House. Econ. (Dom. Sci.), 2+6P.

SENIOR YEAR

First Term

10 English, 2.
1 Mineralogy, 10P.
1 Philosophy (Psychol.), 5.
13 House. Econ. (Dietetics), 2+6P.
Elective, 3.

Second Term

11 English, 2.
1 Geology, 5.
2 History, 5.
14 House. Econ. (Invalid Cookery) 2+6P.
Elective, 3.

Third Term

12 English, 2.
Thesis, 5.
15 House. Econ. (House Sanitation and Management), 5.
Elective, 8.

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[*] The number or letter preceding the subject is the number by which each course is referred to in the College records. The number following each subject indicates the number of hours per week devoted to the subject. P indicates any kind of laboratory or other practice work, two hours of which is accepted as the equivalent of one hour of recitation or lecture work.

NOTICE—Military Tactics is required of all male students of the institution except Juniors, Seniors, and Graduate Students, three hours per week throughout the year. All young women, except juniors, seniors, and graduates, are required to take Physical Culture three days each week throughout the year.

A Course in Agriculture

FRESHMAN YEAR

First Term

1 Mathematics (Geom. Pl.), 5.
1 English, 5.
1 Agronomy (Farm Machinery), 2.
2 Agronomy (Farm Mechanics), 2P.
1 Biology (Zool.), 2+6P.
1 Horticulture (Greenhouse), 1+2P.

Second Term

2 Mathematics, (Geom. Pl.), 5.
2 English, 5.
1 Zootechny (Breeds, etc., of Horses), 1.
2 Zootechny (Judging Horses), 2P.
2 Biology (Zool.), 2+6P.
2 Horticulture (Nursery Work), 2+2P.

Third Term

3 Mathematics (Geom. Sol.), 5.
3 English, 5.
3 Biology (Botany), 2+6P.
3 Zootechny (Breeds, etc., of Cattle), 2.
4 Zootechny (Judging Cattle), 2P.
3 Agronomy (Farm Mechanics), 4P.

SOPHOMORE YEAR

First Term

4 Mathematics (Trig.), 5.
4 English, 5.
1 Chemistry, 3+4P.
3 Horticulture (Plant Diseases), 2.
5 Zootechny (Breeds, etc., of Sheep and Goats), 2.
6 Zootechny (Judging Sheep and Goats), 2P.

Second Term

2 Chemistry, 2+6P.
1 Surveying, 1+8P.
7 Zootechny (Breeds, etc., of Swine), 1.
8 Zootechny (Judging Swine), 2P.
9 Zootechny (Care and Man. of Livestock), 2.
1 Dairying, 2+2P.
2 Dairying (Home Dairy), 2P.
4 Agronomy (Farm Accounts), 2.

Third Term

3 Chemistry, 8P.
4 Biology (Bacteriology), 2.
10 Zootechny (Packinghouse Classes of Livestock), 1.
4 Horticulture (Olericulture), 2+2P.
5 Agronomy (Tillage), 3.
5 Horticulture (Forestry), 3.
11 Zootechny (Breeds, etc., of Poultry), 2.
12 Zootechny (Judging Poultry), 2P.
13 Zootechny (Care and Man. of Poultry), 1.

JUNIOR YEAR

First Term

7 English, 1.
1 Physics, 4+2P.
6 Horticulture (Pomology), 3+2P.
7 Horticulture (Econ. Ent.), 3.
1 Meteorology, 2.
Elective, 5.

Second Term

8 English, 1.
1 Soil Physics, 8P.
1 Political Economy, 4.
14 Zootechny (Feeding), 5.
8 Horticulture (Pruning), 2.
Elective, 4.

Third Term

9 English, 1.
3 Physics, 4+2P.
5 Biology (Plant Physiology), 3+2P.
6 Agronomy (Field Crops), 4+2P
Elective, 5.

SENIOR YEAR

First Term

10 English, 2.
4 Chemistry (Agr.), 3.
15 Zootechny (Animal Breeding), 3.
7 Agronomy (Farm Management), 2.
17 Zootechny (Veterinary Elements), 2+2P.
8 Agronomy (Buildings, Roads, and Fences), 2.
Elective, 5.

Second Term

11 English, 2.
1 Geology, 5.
5 Chemistry (Agr.), 6P.
9 Agronomy (Farm Mechanics), 4P.
9 Horticulture (Plant Breeding), 3.
Elective, 5.

Third Term

12 English, 2.
10 Agronomy (Irrigation), 2+2P.
10 Horticulture (Landscape Gardening), 2.
6 Chemistry (Agr.), 6P.
Thesis 5.
Elective, 5.

A Course in Mechanical Engineering

FRESHMAN YEAR

First Term

1 Mathematics (Geom. Pl.), 5.
1 English, 5.
1 Chemistry, 3+4P.
22 Mech. Eng. (Carp. and Woodturning), 6P.
1 Mech. Eng. (Drawing), 4P.

Second Term

2 Mathematics (Geom. Pl.), 5.
2 English, 5.
2 Chemistry, 2+6P.
23 Mech. Eng. (Forging), 10P.

Third Term

3 Mathematics (Geom. Sol.), 5.
3 English, 5.
3 Chemistry, 8P.
24 Mech. Eng. (Adv. Carp.), 6P.
2 Mech. Eng. (Drawing), 4P.

SOPHOMORE YEAR

First Term

4 Mathematics (Trig.), 5.
4 English, 5.
1 Physics, 4+2P.
25 Mech. Eng. (Pattern Making), 10P.

Second Term

5 English, 5.
2 Physics, 4+2P.
8 Mech. Eng. (Desc. Geom.), 5.
1 Surveying, 1+8P.
3 Mech. Eng. (Drawing), 4P.

Third Term

6 English, 5 .
3 Physics, 4+2P.
5 Mathematics (High. Alg.), 5.
26 Mech. Eng. (Foundry), 6P.
4 Mech. Eng. (Drawing), 4P.

JUNIOR YEAR

First Term

7 & 10 English, 3.
1 Mineralogy, 10P.
6 Mathematics (Anal. Geom.), 5.
9 Mech. Eng. (Elem. Mech.), 4.
27 Mech. Eng. (Iron Work), 6P.
11 Mech. Eng. (Graphic Statics), 4P.

Second Term

8 & 11 English, 3.
1 Geology, 5.
7 Mathematics (Calculus), 5.
10 Mech. Eng. (Mechanism), 5.
1 Political Economy, 4.
5 Mech. Eng. (Mach. Des.), 4P.

Third Term

9 & 12 English, 3.
1 Metallurgy, 4.
8 Mathematics (Calculus), 5.
6 Mech. Eng. (Mach. Des.), 4P.
12 Mech. Eng. (Steam Boilers and Engines), 5.
28 Mech. Eng. (Mach. Shop), 6P.

SENIOR YEAR

First Term

14 Mech. Eng. (Hydraulics), 5.
13 Mech. Eng. (Valve Gears), 3.
30 Mech. Eng. (Heat. & Vent.), 2.
29 Mech. Eng. (Mach. Shop), 4P.
7 Mech. Eng. (Mach. Des.), 6P.
15 Mech. Eng. (App. Mech.), 5.

Second Term

16 Mech. Eng. (App. Mech.), 5.
31 Mech. Eng. (App. Mech. Lab.), 4P.
19 Mech. Eng. (Thermodynamics), 4.
17 Mech. Eng. (Elect. Eng.), 5.
32 Mech. Eng. (Business Law), 2.

Third Term

20 Mech. Eng. (Eng. Struct.), 3.
33 Mech. Eng. (Power Plants), 5.
21 Mech. Eng. (Eng. Lab.), 6P.
34 Mech. Eng. (Cont. & Spec.), 2.
Thesis 6.

A Course in Electrical Engineering

FRESHMAN YEAR

First Term

1 Mathematics (Geom. Pl.), 5.
1 English, 5.
1 Chemistry, 3+4P.
22 Elect. Eng. (Carp. and Woodturning, 6P.
1 Elect. Eng. (Drawing), 4P.

Second Term

2 Mathematics (Geom. Pl.), 5.
2 English, 5.
2 Chemistry, 2+6P.
23 Elect. Eng. (Forging), 10P.

Third Term

3 Mathematics (Geom. Sol.), 5.
3 English, 5.
3 Chemistry, 8P.
24 Elect. Eng. (Adv. Carp.), 6P.
2 Elect. Eng. (Drawing), 4P.

SOPHOMORE YEAR

First Term

4 Mathematics (Trig), 5.
4 English, 5.
1 Physics, 4+2P.
25 Elect. Eng. (Pattern Making), 10P.

Second Term

5 English, 5.
2 Physics, 4+2P.
8 Elect. Eng. (Desc. Geom.), 5.
1 Surveying, 1+8P.
3 Elect. Eng. (Drawing), 4P.

Third Term

6 English, 5.
3 Physics, 4+2P.
5 Mathematics (High. Alg.), 5.
26 Elect. Eng. (Foundry), 6P.
4 Elect. Eng. (Drawing), 4P.

JUNIOR YEAR

First Term

7 & 10 English, 3.
1 Mineralogy, 10P.
6 Mathematics (Anal. Geom.), 5.
9 Elect. Eng. (Elem. Mech.), 4.
27 Elect. Eng. (Iron Work), 6P.
11 Elect. Eng. (Graphic Statics), 4P.

Second Term

8 & 11 English, 3.
1 Geology, 5.
7 Mathematics (Calculus), 5.
10 Elect. Eng. (Mechanism), 5.
1 Political Economy, 4.
5 Elect. Eng. (Mach. Des.), 4P.

Third Term

9 & 12 English, 3.
1 Metallurgy, 4.
8 Mathematics (Calculus), 5.
35 Elect. Eng. (Elect. & Mag.), 2.
21 Elect. Eng. (Steam Boilers and Engines), 5.
36 Elect. Eng. (Elect. Lab.), 6P.

SENIOR YEAR

First Term

14 Elect. Eng. (Hydraulics), 5.
37 Elect. Eng. (Dir. Current Mach.), 5.
38 Elect. Eng. (Elect. Lab.), 4P.
6 Elect. Eng. (Dyn. Design), 6P.
15 Elect. Eng. (App. Mech.), 5.

Second Term

16 Elect. Eng. (App. Mech.), 5.
31 Elect. Eng. (App. Mech. Lab.), 4P.
39 Elect. Eng. (Alt. Current Mach,), 5.
40 Elect. Eng. (Elect. Meas.), 3.
32 Elect. Eng. (Business Law), 2.
7 Elect. Eng. (Dyn. Design), 4P.

Third Term

41 Elect. Eng. (Telephone Eng.), 3.
33 Elect. Eng. (Power Plants), 5.
34 Elect. Eng. (Cont. & Spec.), 2.
42 Elect. Eng. (Elect. Lab.), 6P.
Thesis 6.

Course in Civil Engineering

FRESHMAN YEAR

First Term

1 Mathematics (Geom. Pl.), 5.
1 English, 5.
1 Chemistry, 3+4P.
22 Civil Eng. (Carp. and Woodturning), 6P.
1 Civil Eng. (Drawing), 4P.

Second Term

2 Mathematics (Geom. Pl.), 5.
2 English, 5.
2 Chemistry, 2+6P.
23 Civil Eng. (Forging), 10P.

Third Term

3 Mathematics (Geom. Sol.), 5.
3 English, 5.
3 Chemistry, 8P.
24 Civil Eng. (Adv. Carp.), 6P.
2 Civil Eng. (Drawing), 4P .

SOPHOMORE YEAR

First Term

4 Mathematics (Trig), 5.
4 English, 5.
1 Physics, 4+2P.
1 Astronomy, 5+2P.

Second Term

5 English, 5.
2 Physics, 4+2P.
8 Civil Eng. (Desc. Geom.), 5.
1 Surveying, 1+8P.
45 Civil Eng. (Spherical Trig.), 2.

Third Term

6 English, 5.
3 Physics, 4+2P.
5 Mathematics (High. Alg.), 5.
46 Civil Eng. (Top. & City Survey.), 1+8P.

JUNIOR YEAR

First Term

7 & 10 English, 3.
1 Mineralogy, 10P.
6 Mathematics (Anal. Geom.), 5.
9 Civil Eng. (Elem. Mech.), 4.
47 Civil Eng. (Ry. Surveying), 1+2P.
11 Civil Eng. (Graphic Statics), 4P.

Second Term

8 & 11 English, 3.
1 Geology, 5.
7 Mathematics (Calculus), 5.
1 Political Economy, 4.
48 Civil Eng. (Ry. Surveying), 2+6P.

Third Term

9 & 12 English, 3.
1 Metallurgy, 4.
8 Mathematics (Calculus), 5.
49 Civil Eng. (Ry. Surveying), 2+6P.
50 Civil Eng. (Road Const.), 5.

SENIOR YEAR

First Term

14 Civil Eng. (Hydraulics), 5.
51 Civil Eng. (Stereotomy), 5.
52 Civil Eng. (Highway Eng.), 4+2P.
15 Civil Eng. (App. Mech.), 5.

Second Term

16 Civil Eng. (App. Mech.), 5.
31 Civil Eng. (App. Mech. Lab.), 4P.
53 Civil Eng. (Irrigation Eng.), 5.
54 Civil Eng. (Irrig. Field Work), 6P.
32 Civil Eng. (Business Law), 2.
57 Civil Eng. (Masonry Const.), 3.

Third Term

20 Civil Eng. (Eng. Structures), 3.
55 Civil Eng. (Bridge Design), 10P.
34 Civil Eng. (Cont. & Spec.), 2.
56 Civil Eng. (Water Supply & Sanitary Eng.), 5.
Thesis 6.

A General Course

FRESHMAN YEAR

First Term

1 Mathematics (Geom. Pl.), 5.
1 English, 5.
4 Spanish or 4 Latin, 5.
1 Biology (Zool.), 2+6P.

Second Term

2 Mathematics (Geom. Pl.), 5.
2 English, 5.
5 Spanish or 5 Latin, 5.
2 Biology (Zool.), 2+6P.

Third Term

3 Mathematics (Geom. Sol.), 5.
3 English, 5.
6 Spanish or 6 Latin, 5.
3 Biology (Botany), 2+6P.

SOPHOMORE YEAR

First Term

4 Mathematics (Trig.), 5.
4 English, 5 .
1 Chemistry, 3+4P.
1 German, 5.

Second Term

5 English, 5.
2 Chemistry, 2+6P.
1 Surveying, 1+8P.
2 German, 5.

Third Term

6 English, 5.
3 Chemistry, 8P.
1 Hist. (Med. & Mod.), 5.
3 German, 5.

JUNIOR YEAR

First Term

7 English, 1.
1 Physics, 4+2P.
1 Astronomy, 5+2P.
Elective, 8.

Second Term

8 English, 1.
2 Physics, 4+2P.
1 Political Economy, 4.
2 Astronomy, 1+2P.
Elective, 8.

Third Term

9 English, 1.
3 Physics, 4+2P.
6 Biology, (Physiol.), 5.
3 Astronomy, 1+2P.
Elective, 8.

SENIOR YEAR

First Term

10 English, 2.
1 Mineralogy, 10P.
1 Philosophy (Psychol.), 5.
Elective, 8.

Second Term

11 English, 2.
1 Geology, 5.
2 History (Adv. Amer.), 5.
Elective, 8.

Third Term

12 English, 2.
2 Geology, 5.
Thesis, 5.
Elective, 8.

Winter School of Agriculture and Household Economics

FOUR MONTHS

FIRST TERM, Beginning October 28, 1907, ending December 20, 1907.
SECOND TERM, Beginning January 6, 1908, ending March 1, 1908.

FIRST YEAR

First Term

Arithmetic, 5.
Grammar, 5.
Spelling, 5.
Writing, 5.
Botany, 1.
Poultry, 2.
Elementary Agriculture (M), 2.
Farm Machinery (M), 2.

Drawing, 1P.
Cooking (W), 6P.
Sewing (W), 6P.
Botany, 2P.
Farch Mechanics (M), 2P.
Farm Wood Work (M), 2P.
Elementary Agriculture (M), 2P.

Second Term

Arithmetic, 5.
Grammar, 5.
Physiology, 5.
Floriculture (W), 2.
Farm Machinery (M), 2.
Breeds and Types of Livestock (M), 2.
Hygiene (W), 1.
Dairying (Home Dairy), 2.
Gardening, 1.

Home Decoration (W), 2P.
Floriculture (W), 2P.
Cooking (W), 6P.
Sewing (W), 6P.
Farm Wood Work (M), 2P.
Farm Mechanics (M), 2P.
Stock Judging (M), 4P.
Dairying (Home Dairy), 2P.
Gardening, 2P.

SECOND YEAR

First Term

Grammar, 5.
Commercial Arithmetic, 5.
Orcharding, 2.
Landscape Gardening, 2.
Entomology, 2.
Cereal Crops (M), 2.

Soils (M), 1.
Cooking (W), 6P.
Sewing (W), 6P.
Farm Mechanics (M), 2P.
Soils (M), 2P.
Drawing applied (M), 2P.

Second Term

History, 5.
Chemistry, 2.
Stock Feeding (M), 2.
Veterinary Elements (M), 2.
Bookkeeping and Farm Accounts (M), 2.
Buildings, Roads, and Fences (M), 2.
Care and Management of Livestock (M), 2.

Range Grasses (M), 2.
Household Sanitation (W), 5.
Home Nursing (W), 2.
Cooking, (W), 6P.
Sewing (W), 6P.
Blacksmithing (M), 2P.
Grain Judging (M), 2P.
Farm Mechanics (M), 2P.

NOTE—Courses marked M are for men and those marked W are for women. All courses not thus marked are for both men and women.

Two Years' Course in Agriculture

FIRST YEAR

First Term

English, 4 or 5.
Mathematics, 5.
Horticulture (Plant Diseases), 2.
Farm Mechanics, 2P.
Horticulture (Greenhouse), 1+2P.
Soils and Crops, 3.

Second Term

English, 4 or 5.
Mathematics, 5.
Breeds and Types of Horses, 1.
Judging Horses, 2P.
Horticulture (Nursery), 2+2P.
Dairying, 2P.
Horticulture (Pruning), 2.

Third Term

English, 4 or 5.
Breeds and Types of Cattle, 2.
Judging Cattle, 2P.
Farm Mechanics, 4P.
Chemistry (Elementary), 4.
Botany (Elementary), 4.

SECOND YEAR

First Term

English, 5.
Commercial Arithmetic, 5.
Breds and Types of Sheep and Goats, 2.
Judging Sheep and Goats, 2P.
Horticulture (Pomology), 3+2P.
Veterinary Elements, 2+2P.

Second Term

English, 5.
Bookkeeping, 5.
Breeds and Types of Swine, 1.
Judging Swine, 2P.
Care and Management of Livestock, 2.
Soil Physics, 4P.
Horticulture (Plant Breeding), .3.

Third Term

English, 5.
Bookkeeping, 5.
Breds and Types of Poultry, 2.
Judging Poultry, 2P.
Care and Management of Poultry, 1.
Tillage of Crops, 3.
Vegetable Culture, 2+2P.

Two Years' Course in Practical Mechanics

FIRST YEAR

First Term

Geom. Drawing, 3P.
Free-hand Drawing, 2P.
English, 4 or 5.
Mathematics, 4 or 5.
Woodturning, 10P.
Elective, 4 or 5.

Second Term

Free-hand Drawing, 2P.
Geometrical Drawing, 3P.
Forging, 10P.
English, 4 or 5.
Mathematics, 4 or 5.
Elective, 4 or 5.

Third Term

Free-hand Drawing, 2P.
Mechanical Drawing, 3P.
Carpentry, 10P.
English, 4 or 5.
Mathematics, 4 or 5.
Elective, 4 or 5.

SECOND YEAR

First Term

One of:
- Carpentry, 10P.
- Bench Work in Iron, 10P.
- Pattern Making, 10P.
- Machine Work, 10P.

Drawing, 4P.
English, 4 or 5.
Mathematics, 4 or 5.
Elective, 4 or 5.

Second Term

One of:
- Carpentry, 10P.
- Forging, 10P.
- Pattern Making, 10P.

Drawing, 4P.
English, 4 or 5.
Mathematics, 4 or 5.
Elective, 3.

Third Term

One of:
- Carpentry, 10P.
- Pattern Making, 10P.
- Foundry Practice, 10P.
- Machine Work, 10P.

Drawing, 4P.
English, 4 or 5.
Mathematics, 4 or 5.
Elective, 5.

A Course in English Stenography

First Term	Second Term	Third Term
1 Stenography, 10.	2 Stenography, 10.	3 Stenography, 10.
1 Typewriting, 5.	2 Typewriting, 5.	3 Typewriting, 5.
1 English, 5.	2 English, 5.	3 Spelling, 3.
1 Spelling, 3.	2 Spelling, 3.	Office Practice, 5.

A Course in Spanish Stenography

First Term	Second Term	Third Term
4 English, 5.	5 English, 5.	6 English, 5.
Special Work, 4.	7 Spanish Stenog., 5.	8 Spanish Stenog., 5.
4 Adv. Stenography, 5.	5 Adv. Stenog., 5.	6 Adv. Stenog., 5.
7 Spanish, 5.	8 Spanish, 5.	9 Spanish, 5.
4 Typewriting, 5.	5 Typewriting, 5.	6 Typewriting, 5.

Course in Commerce

FIRST YEAR

First Term	Second Term	Third Term
Commercial Geography, 5.	Economics, 4.	Commercial Law, 5.
C English, 4.	B English, 4.	A English, 4.
1 Spanish, 5.	2 Spanish, 5.	3 Spanish, 5.
1 Spelling, 3 .	2 Spelling, 3.	3 Spelling, 3.
1 Bookeeping, 2.	2 Bookeeping, 2.	3 Bookeeping, 2.

SECOND YEAR

First Term	Second Term	Third Term
4 Bookkeeping, 5.	5 Bookeeping, 10.	6 Bookeeping, 10.
Commercial Arithmetic, 5.	2 English, 5.	3 English, 5.
1 English, 5.	5 Spanish, 5 .	6 Spanish, 5.
4 Spanish, 5.	Civics, 5.	History of Finance, 3.
Commercial Letter Writing, 2.		

Senior Preparatory Year

First Term	Second Term	Third Term
C English, 4.	B English, 4.	A English, 4.
C Mathematics (Algebra), 5.	B Mathematics (Algebra), 5.	A Mathematics (Algebra), 5.
B History (Grecian, Etc.), 4.	A History (English), 4.	A Biology (Botany), 4.
1 Spanish or 1 Latin, 5.	2 Spanish or 2 Latin, 5.	3 Spanish or 3 Latin, 5.
A Agronomy (Elementary), 3, or	A Horticulture (Elementary), 2+2P, or	A Zootechny (Live-stock), 2+2P, or
C Household Economics (Sewing), 4P, and	1 House. Econ. (Plain Sewing), 6P.	A House. Econ. (Plain Sewing), 4P, and
D House. Econ. (Elem. Cooking), 4P.		E House. Econ. (Hygiene), 1.

NOTE—The Senior Preparatory Classes are taught by the College instructors. not by the teachers of the Preparatory Department, and the students are under the immediate jurisdiction of the College Faculty, instead of under that of the principal of the Preparatory Department.

Elective

First Term	Second Term	Third Term
Adv. Chemistry, 6P.	Adv. Chemistry, 6P.	Adv. Chemistry, 6P.
Adv. Physics, 6P.	Adv. Physics, 6P.	Adv. Physics, 6P.
Adv. Botany, 6P.	Adv. Botany, 6P.	Adv. Botany, 6P.
Adv. Soil Physics, 6P.	Adv. Soil Physics, 6P.	Adv. Soil Physics, 6P.
Adv. Zoology, 6P.	Adv. Zoology, 6P.	Adv. Zoology, 6P.
Domestic Science, 4P.	Domestic Science, 4P.	Domestic Science, 4P.
Commercial Spanish, 5.	Commercial Spanish, 5.	Commercial Spanish, 5.
Agronomy, 6P.	Bookkeeping, 5.	Bookkeeping, 5.
Zootechny, 6P.	Agronomy, 6P.	Agronomy, 6P.
Agrotechny, 6P.	Zootechny, 6P.	Zootechny, 6P.
Horticulture, 6P.	Agrotechny, 6P.	Agrotechny, 6P.
Commercial Arithmetic, 5.	Horticulture, 6P.	Horticulture, 6P.
Music, 5P.	Music, 5P.	Music, 5P.
13 English.	14 English.	15 English.
Art Needlework.	Special Dressmaking.	

NOTE ON ELECTIVE STUDIES.—The figures following the Elective Studies indicate the minimum amount of time that may be devoted to them. Whenever the other work of the student and of the instructor do not prevent, a greater amount of time may be given to the subject.

The Elective Studies are not assigned to any particular year but may be taken whenever the student may be prepared for them and has the necessary time at his disposal, subject always to the approval of the factulty.

In addition to the courses expressly designated as Elective Studies, any study pursued in the College, and not prescribed in the course of study that is being followed by the student in question may be elected by him. A student in the Generad Course, for example, may elect a study prescribed for Agricultural students ;or to give a more specific example, a Senior in the Agricultural Course (who has five hourse free for an elective in the third term) may elect Physiology, which is given in the Junior year of the General Course, provided it is given at an hour when he is free from other engagements.

The Elective System

BY consulting the courses of study offered by this institution (pp. 19 to 28) it will be seen that there are six collegiate courses outlined, five of which are of a more or less specialized character. Each of these latter is designed to fit the student for some special line of work, which he has decided to follow. Besides their strictly technical subjects, they contain all those general educational and cultural subjects, considered of most value to technical students, which it was possible to introduce in the prescribed time. This arrangement allows very little selection of work upon the part of the student, except that made when entering his particular course. Engineers of all kinds have no choice of work. Agricultural men may elect a second year of language and a small number of other cultural subjects or more technical work, if they so desire. The course in Household Economics allows a certain amount of election which may be turned either to cultural work or to further technical work in that department.

The general course, however, is designed to include, as required work, those subjects which are necessary in any general course, and at the same time allow the student to select a large proportion of his work. The facilities offered and the time allowed are so arranged that a student may specialize in language (Spanish, Latin, or English), literature (English or American), chemistry, physics, or biology, or may take technical training in agriculture, horticulture, engineering, or household economics. With this arrangement a student, by entering the general course, may take any special course of his choosing, which the institution is able to furnish.

* * *

Special Courses

Students of mature years, who cannot remain long enough to take a full collegiate course, may be allowed to take special courses. The faculty reserves the right to refuse such requests, or to order such modifications as may seem best for the student and the college. No degrees are granted for special work, but those who perform such work in a satisfactory manner will receive certificates. In addition to the above statements, which refer to the selection of work from the collegiate courses, it is necessary to state that special courses are offered in instrumental and vocal music as well as various short courses given in detail in another place (pp. 25 to 27).

Degrees

THE degree of *Bachelor of Science* (B. S.) is conferred upon students who satisfactorily complete the work prescribed in any of the colleigate courses of study, but in order to receive the B. S. degree students are required to spend at least one year immediately before graduation in this institution.

The degree of *Master of Science* (M. S.) is conferred upon students of this institution who, after taking the degree of B. S., pursue for at least one year in residence, or for two years as non-resident students, a course of study approved by the faculty, pass an examination upon the same, and present a satisfactory thesis. Students of other institutions of similar character and equal rank, holding the bachelor's degree and desiring to take the M. S. degree from this institution, are subject to the same requirements as above, except that they must spend the year next preceding the granting of the degree in resident study.

Regarding graduate courses of study, the following rules must be observed:

1. The course shall consist of work equivalent to twenty lecture hours per week, and shall be distributed between one major and two minors.

2. The major, covering ten hours, shall be advanced work not offered to undergraduates, in line with the candidate's principal work leading to the B. S. degree, and at least half of it shall be devoted to research whose results shall be embodied in a thesis.

3. The minors, covering ten hours, may be chosen from lines distinct from that of the major, and may include work offered to undergraduates of the Junior and Senior years.

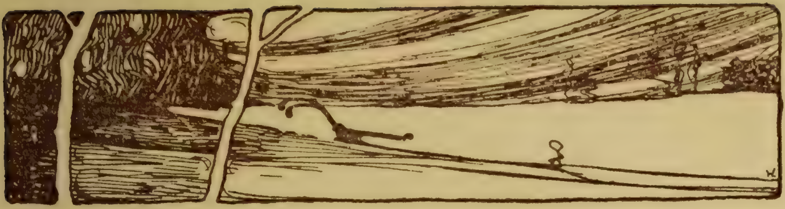
4. The candidate must pass a satisfactory examination upon his work and present his thesis for final approval before the beginning of the Senior vacation.

In bachelor's diplomas, the course completed by the student may, at his option, be indicated parenthetically.

In masters' diplomas, at the discretion of the faculty, the degrees of M. S. A. (Master of Scientific Agriculture) and M. E. (Mechanical Engineer) may be substituted for M. S. in the case of students of Agriculture and Mechanical Engineering.

Departments of Instruction

"I come now to the pleasures, of husbandry, in which I vastly delight They are not interrupted by old age, and they seem to me to be pursuits in which a wise man's life should be spent. The earth does not rebel against authority; it never gives back but with usury what it receives. In my opinion there can be no happier life."—Cicero.



Department of Agriculture

Professor Vernon	**Mr. Hartenbower**
Mr. Southworth	**Mr. ————**

THE course in agriculture is designed to combine, in their proper proportions, that amount of theoretical study with practical training illustrative of the theory learned, which will produce a well rounded, practical, resourceful man. To this end the course is strong in those sciences, botany and chemistry in their various branches, which form important aids to applied agriculture. A certain number of other subjects of educational and practical value are included. To all this is added a large amount of practical work under competent instruction and with a modern equipment. A certain amount of choice is allowed in the selection of the studies of the last two years. The instruction is given by text books, lectures, laboratory practice, and field observation. This course fits young men for the various agricultural pursuits; farming, stock raising, and dairying. It also prepares them for professorships in agriculture and animal husbandry in agricultural colleges, as well as for scientific aids in the United States Department of Agriculture. The demand for trained men in these latter positions has been so great, that in recent years, almost all agricultural graduates have been called into college or experiment station work.

* * *

Agronomy

THE course in Agronomy combines both theory and practice. The different phases of crop production are studied in the class room and the practical work aims to fix the principles learned and give them a practical application. Farm life can be very materially elevated by education in agriculture. An agricultural education includes, not only studies in animal and crop production, but also farm mechanics. The use of labor-saving machinery can be made to rob farm life of much of the drudgery. Therefore, a course in Farm Mechanics is offered for the first time.

A. *Elementary Agriculture.* Introductory principles. The work is general and of a popular nature. Principles of Agriculture by Bailey is used as a text, supplemented by lectures.

Required of all Senior Preparatory men, first term, 3 hours.

1. *Farm Machinery.* Principles of farm machinery including a study of the history, development, construction, uses, operation, care, and simple repairs of farm implements, also a study of draft and power. Lectures supplemented by outside reading.

Required of Agricultural Freshmen, first term, 2 hours. Credit 24 hours.

2. *Farm Mechanics.* Laboratory work devoted to the practical application of the principles discussed in the class room and consisting of taking down, assembling, setting up, testing, and operating the various kinds of farm machinery.

Required of Agricultural Freshmen, first term, 2 hours practice. Credit 12 hours.

3. *Farm Mechanics.* Farm wood-work consisting of practical exercises that will familiarize the student with the use of carpenter's tools and at the same time afford a practical training that will make him capable of performing the necessary construction and repairing in wood on the farm and ranch.

Required of Agricultural Freshmen, third term, 4 hours practice. Credit 24 hours.

4. *Farm Accounts.* The day has arrived when the farmer as well as other business men must know his assets and liabilities. He must know whether he is losing or gaining money as a result of his operations, not only as a whole, but each crop and herd or individual of that herd must be made to answer searching questions of profit or loss. In this day of specialism no one factor has so great an influence for success as business methods. Realizing the importance of this subject to every agriculturist this institution has installed a brief course in farm accounts which includes the books to be used, the definition of general terms, feed records, lands, crops, household, etc. Steiner's Book of Farm Accounts is used as a text.

Required of Agricultural Sophomores, second term, 2 hours. Credit 24 hours.

Agricultural College

Tillage. Origin and classification of soils; methods of tillage; preservation, application, and value of manures and commercial fertilizers;
5. crop rotations for various soils under New Mexico conditions of
climate and altitude. The Fertility of the Land, by Roberts is used as a text, supplemented by lectures.

Required of Agricultural Sophomores, third term, 3 hours. Credit 36 hours.

Field Crops. Choice, uses, storage, planting and cultivation, varieties and their improvement. The practice work consists of judging
6. grain and a study of commercial classes, supplemented by examination of crops in the field. Hunt's Cereals in America is used as a text.

Required of Agricultural Juniors, third term, 4 hours plus 2 hours practice. Credit 60 hours.

Farm Management. This course treats of the location and grouping of farm buildings; utilization of the different soils and exposures;
7. economizing of time and labor in reaching all parts of the farm;
laying out of the farm as will best provide for rotation and maintenance of soil fertility; provision for the necessary live stock, which includes a proper division between tilled and untilled land, meadow, pasture, etc.; and the development of the landscape effects of the entire farm.

Required of Agricultural Seniors, first term, 2 hours. Credit 24 hours.

Farm Buildings, Fences and Roads. Arrangement, construction, and cost of farm buildings, especially of barns, granaries, and silos; cost and
8. construction of roads and walks; the cost, construction, efficiency,
and durability of different kinds of fences. Work to consist of lectures supplemented by text-book references.

Required of Agricultural Seniors, first term, 2 hours. Credit 24 hours.

Farm Mechanics. Our ranches in many cases are more or less isolated and since machines break down from time to time some knowledge of
9. iron-work is needed by the ranchman. For this reason there has
been installed a course in practical blacksmithing. The general operations of keeping fire, heating, bending, welding, tempering, drawing out, and upsetting are taken up in the making of gate-hooks, chains, clevises, wagon-irons, whiffle-tree and neckyoke fittings, cold chisels, nippers, and other common articles and tools used on the ranch. In the

"The farmer of the future must depend more upon mental than upon manual effort."—Morton.

latter part of the course the student is given instruction in the sharpening and polishing of plows and the fitting and shaping of horseshoes, and their adjustment to the horse's foot. Such training is invaluable to the farmer and ranchman.

Required of Agricultural Seniors, second term, 4 hours practice. Credit 24 hours.

Irrigation Practice. Hitherto such studies of irrigation as have been taught in the schools have dealt with the subject almost entirely from the **10.** engineer's standpoint and the disposal of the water after leaving the reservoir or canal has been considered a matter of but small concern or at least of so little importance as to require nothing but a brief and more or less superficial treatment. Irrigation development has, however, so far progressed over the larger part of the arid west that haphazard and loose irrigation practice is no longer considered profitable. Water is reaching an economic value sufficient to justify considerable care in its distribution and use and the adoption of scientific methods as a conservative business policy is gaining the approval of progressive agriculturists and irrigation companies throughout the west. Men are therefore in demand who have the knowledge of how most successfully and economically to use the water which the engineer has made available by his canals and reservoirs. These men must be acquainted with the most economical methods of conveying the water to the point of use and they must know the best time and manner to apply it. While such requirements border somewhat upon the qualifications of the irrigation engineer, they are evidently more closely related to those of the agriculturist. It has, therefore, been deemed advisable to include a set of studies in the Agricultural course which would supply such information on irrigation as is required by the skilled irrigation farmer and which would aid the agricultural student in preparing himself for the work indicated. Such a course should be conducted both in the class room and field and the work is, therefore divided as follows:

Class Room. Two hours per week during the spring term will be devoted to an elementary discussion of the laws governing flow of water as applied to its measurement by weirs, rating flumes, etc.; the estimation of the amount of water required by the several crops as modified by various local and climatic conditions, and with some reference to related questions of plant growth and the movement and amount of soil moisture; the laying out and construction of laterals for the conveyance

"The question of irrigating the arid but irrigable portion of our public domain is destined to become a leading one."—Science.

of water to the farm and the various methods of distribution of this water with a discussion of their relative advantages and applicability to different soils, crops, and topography; a discussion of the methods of conservation of soil moisture and of irrigation practice in various localities which have resulted in increasing the duty of water; a brief treatment of the methods of developing and utilizing individual water supplies (as by pumping from the underground flow) from the standpoint of the equipment advisable, its cost, and the relation of various expenses incident to operation, and, finally, a brief study of drainage as related to irrigation, discussing the causes leading to the necessity of drainage in arid countries and the means employed for ameliorating the condition of swampy and alkaline land.

Field. The equivalent of two hours per week, in measuring the discharge of actual canals and laterals by weir and current meter methods, and of laying out a lateral and distribution system, a survey being made and studied to determine the most favorable method of procedure.

Required of Agricultural Seniors, third term, 2 hours plus 2 hours practice. Credit 36 hours.

* * *

Zootechny

INCREASED immigration into the Territory, development of new irrigation projects, and a generally awakened interest in agriculture are bringing the livestock industry of New Mexico forward at a rapid rate. The cattle, sheep, and goat interests are growing, and farm and range horses are being improved in size and quality. In view of the fact that the livestock industry is the leading industry of New Mexico and that its further development has wonderful possibilities, a strong course in animal husbandry has been planned with special reference to Territorial conditions. This course aims to meet the growing needs of the Territory. The subjects are pursued from a practical as well as a scientific standpoint, having in view the thorough equipment of young men for successful work in breeding, care, and management of large herds.

Breeds and Types of Farm Animals. Elementary in character, with **A.** instruction in the use of the score card and in judging animal form.

Required of all male Senior Preparatory Students, third term, 1 hour plus 2 hours practice.

"The investigation of the duty of water is one of the most complicated problems of irrigation."—Encycl. Americana.

Agricultural College

Breeds and Types of Livestock. This course includes a study of the history, development, characteristics, and points of utility of the differ-
1, ent breeds of horses, cattle, sheep, goats, and swine. The object
3, of these courses is to familiarize the student with the different
5, breeds; noting the excellencies and the deficiencies of each. Special
7. attention is given to a discussion of breeds best adapted to New Mexico conditions. The subject matter of the text is supplemented by lectures. Throughout the course in livestock practical demonstration of the various points under discussion is made with individual animals which are brought before the class; also, occasional trips will be planned having in mind a study of the breeds, methods of handling, and local conditions of the various herds in this section. A new, finely illustrated book by C. B. Plumb is used as a text.

Required of Agricultural Freshmen, 1 hour second term and 2 hours third term, and Sophomores, 2 hours first term and 1 hour second term. Credit 72 hours.

Stock Judging. This is a thorough course in the comparative study of animal form, using the score card as a basis. When, by its use, the
2, student becomes familiar with the points of animal form, he is given
4, rings of animals to judge. In this way he is made familiar with the
6, points necessary to the successful selection of individual animals,—
8. he becomes a competent judge of livestock. Specimens from the college herd will be used in the ring when occasion permits. The students will be taken on trips to establishments where they may have an opportunity to see and judge different classes of animals and to observe and study the methods followed in commercial livestock operations. This course is especially valuable for young men who expect in any way to deal with the livestock interests of the Territory.

Required of Agricultural Freshmen, 2 hours practice, second and third terms, and Sophomores, 2 hours practice, first and second terms. Credit 48 hours.

Care and Management of Livestock. This is a course of practical
9. pointers on shelter, management, and general care of farm animals.

Required of Agricultural Sophomores, second term, 2 hours. Credit 24 hours.

Packinghouse Classes of Livestock. A course of lectures on the pack-
10. ing industry; the classes of animals, the methods of handling, the markets, and the export trade.

Required of Agricultural Sophomores, third term, 1 hour. Credit 12 hours.

Breeds of Poultry. A study and discussion of breeds of poultry, with
11. special reference to breeds best adapted to our conditions. Speci-
mens of the common types are brought before the class for illustration.

Agricultural College

Required of Agricultural Sophomores, third term, 2 hours. Credit 24 hours.

Poultry Judging. In this course the student is trained in judging breed-
12. ing stock, and becomes familiar with the points desired both for
show and for market.

Required of Agricultural Sophomores, third term, 2 hours. Credit 24 hours.

Care and Management of Poultry. A course of lectures on incuba-
13. tion, shelter, feeds, feeding, etc.

Required of Agricultural Sophomores, third term, 1 hour. Credit 12 hours.

Stock Feeding. This subject includes animal nutrition, methods of
feeding, nutritive ratios, making rations, and a careful inquiry into
14. the nutritive value of stock feeds available on the ranches and
markets of New Mexico.

Required of Agricultural Seniors,, second term, 5 hours. Credit 60 hours.

Principles of Animal Breeding. This course covers the laws govern-
ing the breeding of animals, and includes the principles of heredity, laws
15. of correlation and variation, in-and-in and cross-breeding, pa-
rentage, form types, and pedigree. Attention is given to the subject of
breeding for beef and for the dairy.

Required of Agricultural Seniors, first term, 3 hours. Credit 36 hours.

Veterinary Elements. A study of the causes, symptoms, prevention
16. and treatment of the diseases, lameness, and wounds most common
among domestic animals. Lectures on obstetrics supplemented by clinics.

Required of Agricultural Seniors, first term, 2 hours plus 2 hours practice. Credit 36 hours.

⁂

THE completion of the new irrigation projects which will render vast desert areas productive, the breaking up of immense range areas into numerous smaller holdings, and the conquest of the markets to the south and southwest of us, will have a marked influence upon the dairy industry in New Mexico. Owing to the naturally good conditions of climate and markets dairying has a very bright future.

"If stock feeding is to be conducted at a profit there must be put into it a high class of intelligence."—Smith.

1. *Dairying.* The course in dairying comprises a study of the properties of milk and methods of handling milk and its products in the private dairy and thoroughly equipped creamery. Receiving and weighing, testing, separating, ripening cream, churning, pasteurizing, and marketing are subjects discussed in the class room. Instruction is also given in the principles of the Cheddar system of making cheese.

Required of Agricultural Sophomores, second term, 2 hours plus 2 hours practice. Credit 36 hours.

2. *Home Dairying.* This course is particularly designed for young men and young women who expect to live on the farm or ranch. It consists of exercises in the care of milk and milking utensils; ripening of cream; starters; determination of acidity in cream; churning temperatures; coloring, salting, and working butter; pasteurizing milk and cream; bottling, packing, and marketing dairy products; etc.

Required of Agricultural Sophomores, second term, 2 hours practice. Elective for women. Credit 12 hours.

* * *

Equipment

FUNDS have been appropriated for a new and commodious building for carrying on instruction in the various lines of agriculture. This building will be completed soon and will provide offices, class rooms, and laboratories in Agronomy, Animal Husbandry, Dairying, Horticulture, and Irrigation.

The College Farm. The farm connected with the College contains one hundred and seventy acres of land under irrigation, a portion of which is divided into fields and plats for use in demonstrating class room work. The crops grown include various grasses, cereals, roots, forage, and other farm crops which make useful adjuncts in the student's study of the practical combined with theoretical crop growing. In the new building, commodious rooms are set aside for instruction in agronomy, including both crops and farm machinery.

Agronomy Laboratory. A large laboratory for agronomy has been provided, which supplies excellent rooms for grain judging, illustration, etc.

Farm Mechanics Laboratory. A room 24 feet by 31 feet will be used for the display of farm machinery, showing parts, action, etc. Each group of farm implements will be represented by different patterns. A room is devoted exclusively to farm motors, and in this room will be placed a number of gasolene engines of various styles. Special effort is constantly made to have the latest improved farm machines, thus enabling the students to study the different machinery used in this as well as other sections of the country. Pumping plants have been installed which give opportunity for studying the possibilities in pumping for irrigation. Other equipment, such as weirs, adjustable spill-gates, various kinds of measuring apparatus, etc., is available for study.

Class Rooms in Agronomy and Farm Machinery. Besides the three laboratories enumerated, class rooms will be provided which will accommodate a large number of students.

⁂

Livestock. The livestock equipment has been increased very substantially the past year, making possible the giving of very thorough courses in breeds of livestock and in judging. Owing to the fact that the dairy outlook is very bright, the dairy herd has been increased so that now there are fine specimens, both males and females of the Guernsey, Jersey, and Holstein breeds. There are only two beef breeds popular in New Mexico at the present time, consequently the equipment in the beef type of cattle is confined to specimens of the Hereford and Shorthorn breeds.

The wool, mohair, and mutton interests are growing faster than any line of livestock industry, therefore the equipment in this line has been put in new. The flock consists of representatives of the Rambouillet, Shropshire, Lincoln, and Hampshire Down, which come from the best flocks in the central west. A good flock of Angora goats is also maintained.

Four breeds of swine are represented — Tamworth, Yorkshire, Duroc-Jersey, and Berkshire. They are all fine specimens of the respective breeds and come from the prize-winning stock of the Chicago International Show. Recognizing the growing importance of the poultry industry, there has been installed a complete new equipment. Representatives of the leading breeds have been purchased from the best breeders and placed in a modern poultry house.

Livestock Class Room. The new building will be commodious in its facilities for work with livestock. A well lighted room 24 feet by 31 feet is provided with a tan-bark ring, so that the stock can be brought in before the class. Charts and diagrams placed upon the walls will make the class work easier and more instructive.

Dairy Laboratory. In the new building there have been set apart two large rooms for dairying. One, a farm and experimental laboratory, the other, the home dairy, will be used for class instruction purposes only. The two dairies will be equipped with everything that is best in the dairy line. Bottling, washing, and pasteurizing apparatus are of the very latest models as are also the churns, separators, and cheese presses. Several makes of farm separators will be used in the laboratory where the students will have ample opportunity to study the merits of the different machines.

* * *

Student Labor. In connection with the investigations of the Department there are many opportunities which will enable industrious students to use a certain amount of their time for practical work. This labor is paid for at the rate of from 10 cents to 25 cents per hour. Naturally, work of this nature can be made an important aid to those who desire to pay part of their expenses while in college.

"But the laws and principles which control his practice each farmer must know before he can secure his results with the greatest certainty and at the least cost."—King.

Winter School of Agriculture and Household Economics

THROUGHOUT the country there is a great awakening along the lines of industrial education. The time has come when there is a general movement toward practical training. Men and women must receive special training for their callings. The demand for educational advantages that will meet the needs of every-day life is strong and not longer to be denied. The New Mexico College of Agriculture and Mechanic Arts, hoping to meet the needs of the rural population of New Mexico, offers for the first time a four months winter course in agriculture and household economics. No doubt there are a large number of young men and young women upon our farms and ranches who desire to better themselves for their work, but who cannot be spared from home during the busy season. The winter school is designed especially to meet the demands of such students. It begins late in the fall and ends early in the spring, running only during the winter when the duties of the farm and ranch are light. Young men and young women over fifteen years of age are eligible to this course. While a study of the fundamental principles is made a strong feature in the course yet the practical application of those principles is given proper attention. The first term begins October 28th and ends December 20th, 1907. The second term begins January 6th and ends March 1st, 1908. Certificates will be awarded to those completing a four months course.

A brief statement of the character of the instruction follows:

Elementary Agriculture. This course deals with the fundamental principles of agricultural operations. The reasons for each agricultural operation are strongly impressed by simple demonstrations in class and by laboratory exercises in which each student determines the relations between cause and effect. In this way the student gradually develops ability to think, plan, and organize. The student's interest in the seemingly most trivial operations is aroused through the discovery that they markedly affect the results.

Farm Machinery. Machinery is becoming more and more a factor in all industries. Nowhere can labor-saving machinery be more profitably used than in carrying on agricultural work. Much of the labor of the farm can be performed with machinery, thus relieving farm life of much hard labor and materially adding to the profits and to the comforts of life accruing therefrom. In order to use machinery of all kinds the operator must possess some knowledge of mechanics. The demand for instruction in this line is met by the introduction of a course in farm machinery. The course will include a study of the use, construction, and principles of operation of various farm implements and farm motors. The instruction in general farm implements will be given during the first term of the first year while that of the second term will deal principally with farm motors. Since the gasolene engine is one of the simplest and most easily operated of farm motors, instruction will be given on the principles of construction and operation of the various types of gasolene motors, including both two and four cycle engines and the various types of water, oil, and air-cooled engines. The application of steam and electricity to farm operations will also receive attention.

Farm Mechanics. The class room work in farm machinery, which consists largely of a study of the mechanism and basic principles of operation, is rendered more effective by a careful study of the machine itself. The work in farm mechanics includes taking down, setting up, and operating the various farm implements and farm motors, special attention being given to the gasolene engine and the windmill. In the new building one room will be devoted wholly to general farm machinery and another to motors. This course is especially valuable for young men who are engaged in stock raising, to whom ability to operate engines and pumping machinery and make simple repairs is so very necessary. For this purpose a large collection of farm implements is being secured from the manufacturers.

Farm Wood Work. A knowledge of the use of wood working tools is necessary in order to be able to perform the usual repairing upon the farm or ranch. This course in wood work aims to give the needed proficiency in the use of such tools by practice in the performance of actual repair work under a competent instructor. The course meets the real needs of the young man upon the farm or ranch.

Animal Husbandry. In lessening the cost of production and increasing the margin of profit, the livestock interests play an important part. It is especially true nowadays on account of the rapid rise in the price of land. Therefore in order to work successfully with livestock, a man learns that there are special animals for special purposes. Stockmen have recognized this fact, and have given us many breeds of cattle, horses, sheep, and swine. In the second term of the first year this work is taken up—history, development, and characteristics. Three hours per week are given to it and specimens of the breeds and types are used in the class room.

Stock Judging. In selection of breeding stock for the future herd and for the production of the best animals for the market, it is absolutely necessary that the student have a good clear conception of animal form. In view of this, in the same term that studies of breeds and types are taken up, the student spends two afternoons a week with stock taken from the college herd, in the study of animal form. The work is started with the scale of points and score card. When the student becomes familiar with that part of the work, he is given animals of the different classes to judge.

Dairying. The people of the Territory are just beginning to recognize the fact that dairying is very profitable. For this reason, two courses have been installed. The first consists of a study of the theory of dairying; milk—its care and methods of handling; creaming, pasteurizing, and separating. The second course is practice entirely and is given in the farm dairy and in the laboratory. It consists of practice in butter making, cheese making, bottling, separating, and pasteurization.

Stock Feeding. Thousands of dollars annually are wasted in injudicious feeding of stock. It is the prime object of this course to teach the student to feed economically. Different feeds for different animals are considered; standards in feeding, balanced rations, etc., considered from a strictly practical standpoint.

Care and Management of Livestock. In the keeping and raising of livestock there is much more than the mere feeding. There is much important work in study of methods of shelter, corralling, fencing, etc., of the different classes of farm animals. This is taken up in a course offered during the second year.

Veterinary Elements. There is not a stockman but that at some time has had sickness or injuries among his flocks or herds. To be successful with stock a man must have a few elements of veterinary knowledge at hand that are simple and practical and that can be used on short notice. A course for this purpose has been planned, in which are taken up the common diseases, injuries, and lameness; their causes, symptoms, and treatments. The science of veterinary obstetrics is given special attention.

Poultry. It is just being recognized that the raising of poultry is a paying industry, especially where alfalfa is so easily raised. For this reason a course has been planned to meet the need of information on this subject. It treats of the breeds, judging, feeding, and care and management of poultry.

Cooking. (First term). The cooking of vegetables, cereals, eggs, milk, and cheese will be taught during the first term. Stoves, fuels, and the effect of heat on different foods will be discussed.

Sewing. (First term). Each pupil will make a model book covering the full course of sewing.

Cooking. (Second term). The work will be a continuation of the work of the first term with the addition of the cookery of meats, breads, and simple desserts.

Sewing. (Second term). Each pupil will furnish materials, draft, cut, and make a complete set of underwear.

Hygiene. The course will cover a discussion of the laws of health and right living.

Cooking. (Third term). A few lessons will be given in the canning and preserving of fruits. This will be followed by the making of more complicated dishes as cakes, pastries, salads, etc.

Sewing. (Third term). During the term each pupil will draft, cut, and make a cotton dress for which she will furnish the materials.

Cooking. (Fourth term). The planning, cooking, and serving of different meals in the dining-room of the department will comprise the work of this term.

Sewing. (Fourth term). Each pupil will draft, cut, fit, and make a woolen dress for which she will furnish material.

Household Sanitation. The construction, furnishing, and care of a house will be discussed in this course.

Department of Horticulture

Professor Garcia **Mr. Greene**

THE endeavor in teaching this subject is to acquaint the students with the theoretical and practical phases of Horticulture, having in view the thorough training of young men for successful work in horticultural pursuits, such as fruit growing, nursery business, floriculture, market gardening, and viticulture. The instruction is given by textbooks and lectures, supplemented by outside reading, laboratory practice, and field observations.

Floriculture. While the work in floriculture is designed to be of a popular and a practical nature, yet a few of the more general princi-
B. ples upon which successful floriculture is based will be taught. The student is expected to become acquainted with common floricultural operations, such as making cuttings, mixing soils, potting, repotting, watering, germination of seed, arrangement of flowers in bouquets, etc. The principles involved in the laying out and planting of home grounds and the study of the flowering and ornamental plants adapted to New Mexico conditions will also receive some attention.

Required of all Household Economics Sophomores, first term, 2 hours plus 2 hours practice.

Elementary Horticulture. Introductory principles. The work will necessarily be introductory in nature yet sufficiently comprehensive to be
B. of practical use, as well as to form a basis for advanced work for those who wish to pursue the subject further. The laboratory work is so arranged as to consist of operations most likely to be useful to the student after leaving college. The student will learn how to start new plants, graft, bud, top work, prune, and plant, etc.

Required of all Senior Preparatory Men, second term, 2 hours plus 2 hours practice.

"Both as a science and an art, horticulture is capable of becoming a distinct educational force in College and University instruction."—L. H. Bailey.

1. *Greenhouse Methods.* Work in the greenhouse, with hotbeds, and with cold frames occupies an important place among horticultural subjects. Varieties of flowers and vegetables adapted to this line of work in this climate are studied, and due attention is given to methods of growing them for home supply and for market.

Required of Agricultural Freshmen, first term, 1 hour plus 2 hours practice. Credit 24 hours.

2. *Horticulture.* The whole field of propagation is covered under this heading, and includes propagation by seed, separation and division, layering, cuttings, budding, grafting, etc. General nursery management is made a strong feature of the work, and the student is familiarized with nurserymen's methods. The practice in this course affords students opportunity to propagate plants and trees by all the different methods studied in class. This course is an essential to all future horticultural work and forms the foundation for general fruit culture and forest work. The Nursery Book by Bailey is the text used, supplemented by outside reading.

Required of all Agricultural Freshmen, second term, 2 hours plus 2 hours practice. Credit 36 hours.

3. *Fruit and Vegetable Diseases.* A study of the more important economic diseases of fruits and vegetables. The work is taken up purely from the economic side. The course consists of text, lectures, and reference work.

Required of Agricultural Sophomores, first term, 2 hours, Credit 24 hours.

4. *Olericulture.* General principles underlying vegetable culture; practical work in planning and laying out vegetable gardens; preparing seed beds, planting, transplanting, cultivation, irrigation, and preparing vegetables for market. Green's Vegetable Gardening is used as a text.

Required of Agricultural Sophomores and Household Economics Juniors, third term, 2 hours plus 2 hours practice. Credit 36 hours.

5. *Forestry.* This includes the stud yof wind-breaks, utility of forest plantations, and the general influence of forests on the climate and water courses. The subject of forest reserves, forest and street tree planting will also receive careful attention.

Required of Agricultural Sophomores, third term, 3 hours. Credit 36 hours.

"The forest is as beautiful as it is useful."—Pinchot. 48

Agricultural College

6, 7. *Pomology.* The work in pomology includes all the subjects relating to fruit culture; evolution, classification, judging, and description of fruits; location and climate, wind-breaks; tools and tillage, plans and planting; thinning, pruning, spraying, irrigating, picking, packing, and marketing are among the subjects presented. The department orchards and vineyards and several commercial orchards and vineyards in the vicinity afford unusual means of illustration for students to become acquainted with varieties which are adapted to this section. Bailey's Principles of Fruit Growing and Waugh's Systematic Pomology are the texts used.

Required of Agricultural Juniors, first term, 3 hours plus 2 hours practice; second term, 2 hours. Credit 72 hours.

8. *Economic Entomology.* This course is designed to give students a fair knowledge of the principal groups of insects of economic importance, special attention being given to the study of injurious insects and the means of destroying them.

Required of Agricultural Juniors, first term, 3 hours. Credit 36 hours.

9. *Plant Breeding.* The student having completed his biological studies is prepared for a discussion of plant breeding and the evolution of cultivated plants. Selection, crossing, variation, and the influence of environment, food, etc. are investigated.

Required of Agricultural Seniors, second term, 3 hours. Credit 36 hours.

10. *Landscape Gardening.* A study of systems of landscape gardening, comprising such subject matter as laying out and planting residence grounds, railroad, hotel, and public parks; location and setting of houses and other buildings; avenues, drives, walks; ornamental trees, shrubs, and flowers adapted to planting in New Mexico; lawns, beds, and borders; grouping, variation; and the general principles involved in the arrangement and planting of home grounds and farm for beauty, comfort, and utility.

Required of Agricultural Seniors, third term, 2 hours. Credit 24 hours.

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Equipment

THE department library contains a number of books of reference on all subjects of Horticulture, including the Cyclopedia of American Horticulture, The Illustrated Dictionary of Gardening, Pruning Book, Evolution of Our Native Plants, the reports of the American Pomological Society, and many monographs on the different orchard fruits, small fruits, vegetables, and flowers. The equipment of horticultural tools is quite complete. In addition to a number of different styles of orchard and garden cultivators, the department has a good supply of the different kinds of pruning knives, shears, and saws, as well as trowels and dibbers. There are five kinds of sprayers; a knapsack, a barrel force pump, a kerowater pump, used for spraying trees with a large Wallace power sprayer. All of these are used in the laboratory work and students wishing to make a special study of any of these implements are at liberty to do so.

There is a fair collection of fruits preserved in formalin to which the student has free access for studying varieties.

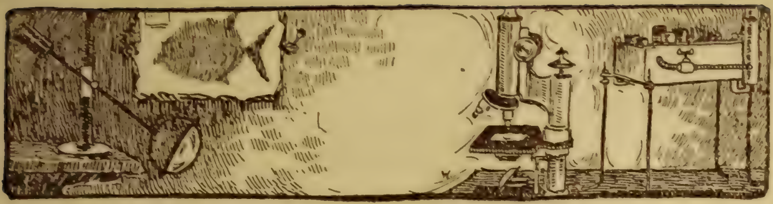
The experimental orchards and vineyards contain many varieties of fruit. An experimental apple orchard and a plantation of strawberries and other small fruits have been planted, as well as a vineyard to study varieties of the *Vitis vinifera* grape resistant to the crown-gall and the cause of this disease.

The vegetable gardens, greenhouse, and cold frames, afford excellent opportunity for study and experiment. The arboretum, forestry plantations, and lawns give enlarged facilities for observation and study.

Constant additions are being made to the equipment. The experimental work of the Experiment Station, carried on by this department may be made an excellent adjunct to the instruction given in class, affording as it does opportunity for the student to become acquainted with the different lines of investigational and practical horticulture.

The department has secured a 23-acre farm to be used for experiment purposes, where such investigations as variety tests of apples, strawberries, blackberries, gooseberries, raspberries, and currants, grape crown-gall, codling moth life history, plant breeding, effect of commercial fertilizers on vegetables, etc. have been started.

The department will have an office, a class room, and a laboratory on the second floor of the new Agricultural Hall. When the department moves into its new quarters, it will be equipped with a complete set ot models of all the common varieties of apples, pears, peaches, plums, cherries, and small fruits; charts showing the diseases of fruits and vegetables; vegetables preserved in formalin; set of plant breeding instruments; breedings cages, etc. to study the life history of some of the more destructive insects in this climate; small glass-covered cases with samples of the seed of all the vegetables.



Department of Biology

Professor Wooton Mr. Standley

THE required course in biology is only elementary and general in character, and designed to present the general principles of the subject to the student and at the same time introduce him to a limited number of types of the various larger classes of animals and plants. For the work the lecture and laboratory method is used.

Botany. **A.** A general treatment of the flowering plants, their structures, functions of parts, simpler classification, distribution, and economic uses. Bergen's Elements of Botany is the text-book used.

Required of all Senior Preparatory students, third term, 4 hours.

Zoology. **1.** Fundamental principles of life; elementary study of the cell, its parts and functions; introductory treatment of the effects of variation, heredity, environment, and use; types studied are invertebrate animals, most of the time being devoted to gross anatomy and comparative morphology. Text-book; Animals, by Jordan, Kellog, and Heath. This text is used the next term also. Laboratory manual, Pratt's Invertebrate Zoology.

Required of all regular Freshmen (except Engineers), first term, 2 hours plus 6 hours practice. Credit 60 hours.

Zoology. **2.** Continuation of the study of animal life. Types examined are the higher invertebrates and vertebrates. Various laboratory manuals are used in the laboratory work, while Parker and Haswell's text-book is the most important reference book.

Requirements and credit same as in Biology 1, second term.

"An eye trained to see is valuable in any kind of business."—W. J. Beal.

3. *Botany.* The comparative morphology of plants; studied by means of representative types of the larger classes. The phylogenetic development of the plant kingdom is set forth as clearly as the time will allow. Text-book, Bergen and Davis' Principles of Botany.

Requirements and credit same as in Biology 1, third term.

4. *Bacteriology.* Lectures and demonstration work on bacteria of water, air, soil, and foods, and those causing fermentation and disease. Sternberg, Muir and Ritchie, Duckwall, Conn, and Newman's books are used for reference.

Required of Agricultural and Household Economics Sophomores, third term, 2 hours Credit 24 hours.

5. *Plant Physiology.* Lectures and laboratory practice on relations of plants to their environmental stimuli; composition of the plant body, its changes, constructive and destructive. Sachs, Detmer, MacDougal, and Ganong are used for reference.

Required of Agricultural Juniors, third term, 4 hours, or equivalent in practice. Credit 48 hours.

6. *Human Physiology.* Lectures, demonstrations, and recitations on the anatomy, histology, and physiology of the human body. Text-book, The Human Mechanism, by Hough and Sedgwick.

Required of Juniors of the General Course and Household Economics Sophomores, third term, 5 hours. Credit 60 hours.

Elective Courses are offered by this department in either zoology or botany, the particular branch of either subject being largely at the option of the student. Special facilities for the study of the flowering plants of New Mexico are to be obtained at this institution. All students electing work in this department must have completed Biology 1, 2, and 3. Minimum, 6 hours of practice; credit 36 hours; more time in proportion. All such electives will be accepted as minors for graduate work. Students doing major graduate work in this department must have done one year of elective work in some biological subject besides Biology 1, 2, and 3, and for that major must do not less than ten hours per week for one year. Arrangements for all elective and graduate work must be made with the head of the department.

Equipment

THIS department occupies three rooms on the upper floor of Science Hall. One room is used solely as a laboratory for biology and physiology. It is equipped with gas, water, tables, cases, dissecting and compound microscopes, microtomes, necessary instruments and materials, charts, casts, bacteriological incubator, ovens, and a general assortment of apparatus, glassware, and reagents for all kinds of biological work. A second room is used as the herbarium. In it are the college herbarium of about 14,000 sheets and the private herbarium of the head of the department, about 6,000 sheets. These two herbaria contain representatives of perhaps 85 per cent. of the species of flowering plants and ferns of the Territory of New Mexico. There are also about 1,000 specimens of fungi and algæ represented, the greater portion of these being named fungi of economic importance. The herbarium has abundant case and table room. The third room is used as an office for the department, and contains the departmental library of about 400 volumes.

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Geology

THE work of this subject is taught by lectures and recitations with prescribed text-book reading. Occasional field work is arranged for as often as facilities will permit.

Dynamical Geology. Includes dynamical, structural, and physiographic geology, some considerable stress being laid upon rocks, **1.** rock-making minerals, and their derivative soils. Chamberlin and Salisbury's geology Vol. I, is used as text-book.

Required of all Seniors, second term, 5 hours. Credit 60 hours.

Historical Geology. A detailed treatment of the geological history of **2.** the earth together with some elementary work in paleontology.

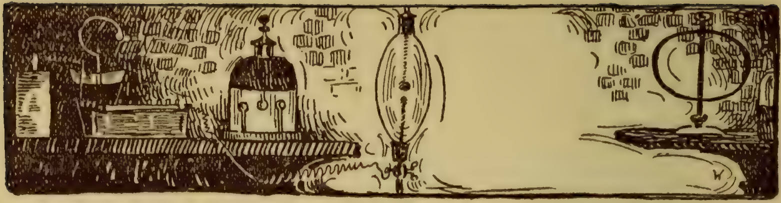
Required of General Course Seniors, third term, 5 hours. Elective to students who have taken Biology 1, 2, and 3 and Geology 1. Credit 60 hours.

* * *

Equipment

The department of Geology occupies one room on the second floor of Science Hall and has at its disposal a collection of the common minerals, the U. S. Geological Survey collection of rocks, a Bausch and Lomb petrographic microscope, a number of fossils, and a departmental library.

"Catch the spirit of the great workers in Science and learn to work as they did, honestly, accurately, and 'with infinite patience.'"—V. M. Spalding.



Department of Physics

Professor Tinsley **Mr. Stockton**

Physics

THE course in General Physics is designed to present a general survey of the subject and acquaint the students with the fundamental conceptions of matter and energy, their laws, and the practical application of these to the problems of engineering, agriculture, etc. The method of instruction is by recitations, lectures, demonstrations, and laboratory practice.

Elementary Physics. **A.** Introductory principles of the subject.

Required of all Junior Preparatory students, first half year, 5 hours.

General Physics. **1.** The properties of matter, mechanics of solids and liquids.

Required of all regular Juniors, first term, 4 hours plus 2 hours practice. Credit 60 hours.

General Physics. **2.** Study of sound and light.

Required of all Juniors (except Agricultural students), 4 hours plus 2 hours practice second term. Credit 60 hours.

General Physics. **3.** Study of heat, electricity, and magnetism.

Requirements and credit as in Physics 1, third term.

Advanced Physics. **4. 5. 6.** Advanced work, principally experimental, adapted to the needs of the student. Elective for students who have completed Physics 1, 2, and 3, and a minor for graduate students.

3 hours recitation or 6 hours practice required as a minimum. Credit for 3 hours is 36, hours, additional time in proportion.

"Science is, I believe, nothing but trained and organized common sense, differing from the latter only as a veteran differs from a raw recruit."—Huxley.

Soil Physics

THIS course is designed to meet the increasing demand among agriculturists for a more intimate and extensive acquaintance with the soil. It also fits students to become specialists in soil work. In this line the demand for trained men now exceeds the supply for the various soil surveys which are being undertaken by the state and national governments.

Beginning Soil Physics. **1.** A brief survey of the origin and physical characters of soils by lectures and recitations; with laboratory and field practice in soil sampling, determinations of moisture, salt content, water holding power, mechanical analyses, classification, and mapping.

Required of Agricultural Juniors, and elective for other students, second term, 8 hours practice. Credit 48 hours.

Advanced Soil Physics. **2, 3, 4.** Advanced work on soils. Elective for those who have completed Soil Physics 1, and as a minor for graduate students.

Minimum 6 hours practice. Credit for minimum 36 hours.

Graduate Work on Soils. **5, 6, 7.** Advanced work on soils. Offered as a major for graduate students who, wishing to specialize in this line, have completed Soil Physics 1, 2, 3, and 4.

Time required, equivalent of 10 lecture hours per week. Credit 120 hours.

Meteorology. **1.** Lectures and recitations with accompanying laboratory practice. A study of the common meteorological instruments, their construction and uses, and those meteorological phenomena having most direct bearing on the agriculture of New Mexico.

Required of Agricultural Juniors and elective for other students, first term, 2 hours. Credit 24 hours.

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Equipment

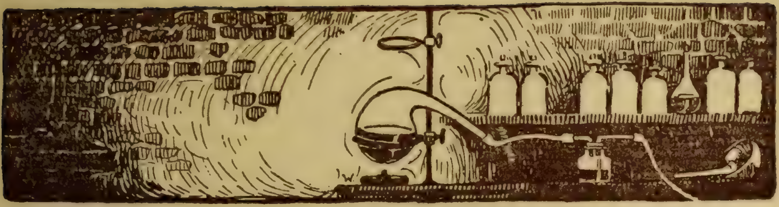
THIS department occupies two rooms on the second floor of Science Hall.

The physical laboratory is a large room (50x20 ft.) on the south side of the building, well adapted to physics work. It has in it a dark room, supplied with gas and water, for photometric and photographic work, wall cases for the storage of apparatus, lecture table, and wall desks for student work.

The room devoted to soil work is well fitted with work desks, tables, and shelving, and is supplied with gas and water.

The physical laboratory is quite well supplied with apparatus for the usual class demonstrations and practice. In addition there are a number of pieces of finer apparatus for advanced work; e. g. Atwood's machine, balances, barometer, thermometers, including one of Green's standards, spectrometer, polariscope, stereopticon, photographic outfit, Rowland D'Arsonval and tangent galvanometers, resistance box, standard cell, and Wheatstone bridge.

The soil physics laboratory is especially well equipped, this being one of the prominent lines of investigation of the Agricultural Experiment Station. The equipment includes electrical appartus for the determination of "alkali" in soils and waters, electrical soil hygrometers and accessories, soil samplers, drying ovens, balances and weights, shaker, water motor and centrifuge for mechanical analyses of soils, and the necessary glass and platinum ware and reagents for carrying on investigations of the physical properties of soils and their salt content. For the work in meteorology, in addition to an evaporation tank and anemometer, there are the usual instruments furnished by the U. S. Weather Bureau to voluntary observers.



Department of Chemistry

Professor Hare **Mr. Deemer** **Mr. Mitchell**

THIS department offers exceptional facilities for work in chemistry, mineralogy, metallurgy, and assaying. The work required of all students in the Freshmen or Sophomore class is a course in the fundamental principles of general chemistry, the subject being presented by lectures and recitations with demonstrations in the class-room and applications of the principles by each student in the laboratory.

Students in the Agricultural Course are required to do an extra year of work in the chemistry of agricultural products, soils, waters, etc.

In Assaying, a year's course is offered to those who wish to become practical assayers, instruction being given in both the wet and dry methods in common use.

The instruction in Mineralogy is by both descriptive and determinative methods, while in Metallurgy lectures and recitations, with occasional visits to mines and smelters in this vicinity, constitute the plan followed.

Elective courses are offered, during the second year in chemistry, in the different branches of advanced work.

General Chemistry. **1.** A study of principles of general chemistry by means of lectures and demonstrations, supplemented with laboratory practice.

Required of all Freshmen Engineers, Sophomores of all other courses and Assaying students, first term, 3 hours plus 4 hours practice. Credit 60 hours.

General Chemistry. **2.** Continuation of the previous term's work.

Required of all Freshmen Engineers, Sophomores of all other courses and Assaying students, second term, 2 hours plus 6 hours practice. Credit 60 hours.

> *"On the ground which was richly fertilized by the ruined fancies of unlucky inventors there flourished the tree of knowledge of the law of indestructibility of energy, the golden fruit of which was plucked by Myer and Helmholtz."—Nernst.*

3. *Qualitative Analysis.* The work of this term is entirely in the laboratory. Upon the completion of this term's work students are expected to be able to analyze various compounds.

Required of all Freshmen Engineers, Sophomores of other courses and Assaying students, third term, 8 hours practice. Credit 48 hours.

4. *Agricultural Chemistry.* The work consists of a text-book study of such subjects as animal nutrition, plant food, and fertilizers, as presented in Snyder's "Chemistry of Soils and Fertilizers" and "Chemistry of Plant and Animal Life."

Required of Agricultural Seniors, first term, 3 hours. Credit 36 hours.

Agricultural Chemistry. 5, 6. Laboratory work in the analysis of agricultural products, waters, soils, etc.

Required of Agricultural Seniors, second and third terms, 6 hours practice. Credit 72 hours.

7. *Quantitative Analysis.* Laboratory practice in general quantitative analysis. During the term students receive instruction in the use of the balance and in general quantitative manipulation. Each student is required to make some of the fundamental quantitative determinations, thus becoming familiar with quantitative processes of actual practice.

Elective for all students who have completed Chemistry 1, 2, and 3, first term, 6 hours practice. Credit 36 hours.

8. *Advanced Chemistry.* The nature of the work done during this term is left largely to the choice of the student; but, in general, usually consists of laboratory work along some line of original investigation. The work, especially during the latter half of the term, should be along the line leading to the thesis work to be taken up the next term.

Elective for all students who have completed Chemistry 7, second term, minimum time 6 hours practice. Credit 36 hours for minimum time; more in proportion.

9. *Thesis.* Students who elect chemistry for their thesis work, are required to take up some line of original investigation and prepare a paper on the same. The work is principally in the laboratory, supplemented by a course of outside reading. While but one term is required

"But a rational system of agriculture cannot be formed without the application of scientific principles. This knowledge we must seek from chemistry."—Liebig.

for thesis work it is much better to select the subject in the second term and devote a considerable portion of that term to the work.

Required of all Seniors who choose a chemical thesis, third term, 10 hours practice as a minimum.

Graduate Work. Advanced work in chemistry, leading to the degree
of M. S., is offered to graduate students. The character of the work
10. selected is left largely to the choice of the student, subject to the
11. approval of the head of the department. The work taken up,
12. however, must consist largely of original research along some line
of chemical investigation. It practically amounts to a continuation of
work of the same character as the thesis work of the Senior year, although the subject may be different.

The minimum time requirement for this work as a major is 10 hours practice per week throughout one year.

Mineralogy. A laboratory study of the more important minerals,
special attention being given to the ores and other minerals of commercial
1. value. The more important rock-making minerals are studied as
completely as the time devoted to the subject will permit. Dana's System of Mineralogy and other standard works are used as reference books.

Required of all (except Agricultural) Seniors and Assaying students, first term, 10 hours practice. Credit 60 hours.

Metallurgy. The work is presented in the form of lectures and recita-
1. tions, using Hiorn's Text-book of Elementary Metallurgy, with a
course of supplementary required reading.

Required of all Junior Engineers and Assaying students, second term, 4 hours. Credit 48 hours.

Assaying, Dry Methods. For the accommodation of those of our
students who desire to elect the subject of assaying, instruction is given
1. in the fire assay of gold, silver, and lead ores. Each student is
assigned furnaces, and is supplied with the necessary crucibles, scorifiers, material for making fluxes, etc. Besides other necessary apparatus, he also has the use of the balances for weighing out charges, mixing fluxes, and weighing gold and silver beads.

Required of all Assaying students, and elective for others who have completed Chemistry 1, 2, and 3, first term, minimum time 6 hours. Credit 72 hours.

"We may forget the parts but the habit of observation and self-reliance acquired will remain."—W. J. Beal.

Assaying, Wet Methods. The study of the quantitative determination 2. of copper, lime, silica, etc., by the best volumetric and gravimetric methods.

Required of all Assaying students, and elective for others who have completed Assaying 1, second term, minimum time 6 hours. Credit 72 hours.

Assaying, Research Work. The work relates chiefly to the composition and metallurgy of ores. Students are encouraged to make original 3. studies of methods for the extraction of metals from their ores, in order to determine which are most applicable and economical in particular cases.

Required of all Assaying students, and elective for others who have completed Assaying 2, third term, minimum time 6 hours. Credit 72 hours.

The work in assaying is principally in the laboratory, but is supplemented by a course of reading in standard books on assaying, analytical chemistry, etc.

The time required during the year, of students taking assaying, is six hours or equivalent practice per week. It will usually be possible, however, to arrange for extra work; and students are strongly urged to do so when possible, as the amount of knowledge gained in this subject depends largely upon the time devoted to it in the laboratory.

Students taking assaying are also required to take the regular work in chemistry, geology, mineralogy, and metallurgy.

Students will not be admitted to the course in assaying, unless they have sufficient preliminary training to enable them to carry the work.

* * *

Equipment

THE chemical department occupies all of the lower floor of Science Hall with the exception of one room. The college work and the station work have separate quarters. Six good sized rooms and a smaller store room are used in the instruction of students, and two rooms and a store room, for the station work. A small brick building, stationed at a safe distance from the main building, is also used by the department as a store house for gasolene and other combustible and explosive substances.

The rooms set apart for use in the instruction of students are as follows:

A large qualitative laboratory for students beginning the study of chemistry. This laboratory is fitted with work desks which are supplied with gas, water, and drain, and have drawers and lockers with combination locks. The qualitative laboratory also contains, among other things, a sink, and a fume closet for work in which noxious gases are present.

A quantitative laboratory for the use of advanced students. This laboratory is supplied with two thoroughly equipped work desks, fitted with gas and water pipes, a drain trough through the center, a bottle rack on the top, and drawers and lockers with combination locks. This laboratory also contains a first class fume closet and sink.

A laboratory for work in Metallurgy and Mineralogy. This is a large room with a well equipped work desk twenty feet long, a brick and sheet-iron covered furnace table with four gasolene furnaces, and other accessories to make complete a laboratory of this character.

A fire-proof assay laboratory, which contains six gasolene crucible furnaces and two muffle furnaces. This laboratory is also supplied with two ore crushers, a sampling plate, two sets of sieves, crucibles, tongs, cupel moulds, and other accessories necessary in a well equipped laboratory of this character.

A weighing room, opening into the quantitative and assay laboratories. This room is fitted with a substantial balance table mounted on brick piers in contact with the ground, a high grade assay balance, two chemical balances, and a heavier balance for rough weighing. This room is also provided with a series of bins for storing the fluxes, assay charges, etc., and with a case for sample bottles.

A lecture room, supplied with a lecture desk, a sink, water, gas, charts, and other accessories.

A conveniently located store room for chemicals and general laboratory supplies for students.

The laboratories used for the chemical work have brick walls and wooden ceilings, fourteen feet high. Each laboratory is supplied with one or more ventilating flues which aid in the removal of fumes and in

"Pure science must precede applied science."—Davia Starr Jordan.

the ventilation of the rooms. The general equipment of the laboratories has been very materially increased and is modern and first class in every particular.

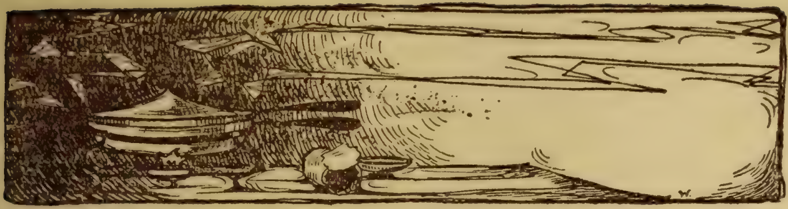
The laboratories fitted up for the accommodation of the Experiment Station work contain, among other things, three work desks supplied with gas, water and air exhaust pipes for rapid filtration, a commodious hood to carry off noxious gases, apparatus for the determination of nitrogen by the Kjeldahl method, a titration shelf and system of burettes, and a large still for the preparation of distilled water. The Station equipment also includes a balance table mounted on brick piers in contact with the ground, two Herzberg and Kuhlmann short beam automatic analytical balances, an Ainsworth No. 1 assay balance, two Springer torsion balances, a latest model Schmidt and Heensch triple-shadow polariscope, an imported mill for grinding samples, and over twelve hundred dollars worth of platinum ware.

The chemical department also has a good collection of 700 mineral specimens for class use, and a department library of 400 reference books and periodicals costing $2,000.

The gas supply for the department is furnished by a 200-light Matthews gasolene gas machine which is provided with an automatic mixer whereby the gas is kept uniform in quality.

The water supply is furnished by a deep well on the college grounds, the water of which is of much better quality than most of the well waters of the valley.

Fees. See article on "Fees and Deposits."



Department of Household Economics

Professor Haggart — Associate Professor Foster

Household Economics

THIS course offers to young women an opportunity to study those subjects which pertain to the life and well-being of the home as well as those affording general culture. As the household sciences are dependent upon chemistry, physics, biology, physiology, and bacteriology these find an important place in the course.

Throughout the course, theory is combined with practice in order that the fullest development of hand and mind may be obtained. The aim is to train and broaden the minds of women and to enable them to meet more intelligently the demands of modern life.

Sewing. **C.** Instruction in plain sewing, mending, darning, care and use of a machine and its attachments. A set of pieces is made, giving practice in basting, running, overhanding, back stitching, half back stitching, overcasting, felling bias seams, gathering and stroking gathers, putting on band, gussets, hemming, blind-hemming, hemstitching, whipped ruffle, chain, herringbone and feather stitching, buttonholes, loops, eyelets, patching flannel and cotton goods requiring matching of figures. Machine attachments are used in constructing a set of models giving practice in stitching, quilting, felling, hemming, gathering, putting on lace, tucking, binding, underbraiding, etc.

Required of all Senior Preparatory women the first term, 4 hours practice.

Plain Sewing. **B, A.** Simple drafting, making of undergarments and shirt waists. Each student is required to draft, cut, and finish drawers, corset cover, skirt, night-gown, and shirtwaist.

Required of all Senior Preparatory women, second term, 6 hours practice, and third term, 4 hours practice.

"The mission of the ideal woman is to make the whole world homelike."—Frances Willard.

Drafting. **1.** The Jewel tailoring system is used and students are taught to draft patterns for waist, skirt, sleeve, etc. Instruction is given in designing and for practice in copying designs, simple and elaborate styles are made up in tissue paper.

Required of Household Economics Sophomores, second term, 2 hours practice. Credit 12 hours.

Textiles. **2.** Lectures on the history and development of sewing. Study of fabrics and their manufacture.

Required of Household Economics Sophomores, second term, 1 hour. Credit 12 hours.

Dressmaking. **3, 4.** Each student is required to design, cut, fit, and finish one unlined wash dress, one wool skirt, lined or with drop skirt, and a lined waist.

Required of Household Economics Sophomores, second and third terms, 4 hours practice. Credit 24 hours.

Millinery. **5.** This course gives the student a practical knowledge of the foundation principles of millinery and involves the making and trimming of one hat.

Required of Household Economics Juniors, first term, 2 hours practice. Credit 12 hours.

Art Needlework. **6.** Embroidery, Roman Cut Work, English Eyelet, Jewel, Mountmellick, Calcutta, and Hardanger embroidery; drawn work and lace making.

Elective for Household Economics Juniors, 2 hours practice. Credit 12 hours.

Special Dressmaking. **7.** Elective for Household Economics Seniors, throughout the year.

Elementary Cooking. **D.** This course illustrates the fundamental principles of cookery; the effect of heat upon the various food constituents; household fuels and their uses; construction and care of cooking utensils. It also includes the cooking of vegetables, cereals, eggs, and meat, with a few lessons on bread-making and pastries.

Required of all Senior Preparatory women during the first term, 4 hours practice.

Hygiene. **E.** Lectures and discussions of the essential laws of health and right living.

Required of all Senior Preparatory women 1 hour a week during the third term.

Home Nursing. This course includes the home care of the sick with
8. first aid to the injured and emergencies.

Required of Sophomores in the Household Economics Course, second term, 2 hours. Credit 24 hours.

Laundering. Hard and soft waters, soaps, washing fluids, bleaching
9. powders, bluing, and starch are discussed in their scientific and
practical relations to laundry work.

Required of all Sophomores in Household Economics Course, third term, 2 hours. Credit 24 hours.

Domestic Science. This course includes the study of food constitu-
ents, such as sugars and starches, as found in vegetables and fruits and in
10. manufactured products like flour, breakfast foods, and bever-
ages. For practical work students will do canning, preserving, pickling, and jelly-making with such fruits as are obtainable. Cooking vegetables, cereals, and sugars will also receive attention.

Required of Juniors of the Household Economics Course, first term, 2 hours plus 6 hours practice. Credit 60 hours.

Domestic Science. The work of this term is a continuation of that
begun the first term. It consists mainly of the study of the proteids
11. as found in milk, butter, cheese, eggs, and meats. The prac-
tice work includes the cooking of eggs, meats, and batter and dough mixtures.

Required of Juniors of the Household Economics Course, second term, 2 hours plus 6 hours practice. Credit 60 hours.

Domestic Science. The remaining food principles are considered in
this course, together with the cost of food and an investigation of the
12. processes used by manufacturers of foods. For practice work
the use of fats and oils in pastry, salads, etc. is considered. At some time this term each pupil is required to prepare and serve a dinner to six people, for a given amount of money.

Required of all Juniors of the Household Economics Course, third term, 2 hours plus 6 hours practice. Credit 60 hours.

Dietetics. This course includes the study of the nutritive and dietetic
values of food; uses of food in the body; planning of balanced dietaries
13. and hygienic combinations of foods. The practice work will

Agricultural College

include more complicated dishes, together with the serving of breakfasts, luncheons, dinners, and teas.

Required of Seniors in Household Economics Course, first term, 2 hours plus 6 hours practice. Credit 60 hours.

14. *Invalid Cookery.* This course includes the study of food adapted to various diseases. The feeding of infants and children will constitute an important part of the course. The practice work includes the preparation and serving of liquid, light, and convalescent diets.

Required of all Seniors in Household Economics Course, second term, 2 hours plus 6 hours practice. Credit 60 hours.

15. *Household Sanitation and Management.* Sanitary construction and care of the house; sanitary, artistic, and economical household furnishings; judicious expenditures of incomes and keeping of household accounts.

Required of Seniors in Household Economics Course, third term, 5 hours. Credit 60 hours.

Elective. During the Spring Term a course of twelve lessons in Chafing Dish Cookery will ge given.

* * *

Equipment

THE sewing room is well equipped with all the conveniences necessary to the department: three machines, cutting and sewing tables, lap boards, sewing cabinets for holding samples of finished work, for storing supplies, etc. A fitting room is separated from the main room by portieres, and furnished with a wash stand, couch, and necessaries.

The kitchen laboratory is provided with individual gas stoves on desks fitted with small closed cupboards which contain the utensils needed constantly. It contains also general articles of furniture as refrigerator, cupboard, ranges, sink, and dining-table.

The library of the department contains a number of the best books on subjects pertaining to Household Economics, as well as the U. S. and State Experiment Station Bulletins. Use is being made of these constantly for text as well as reference books. The best charts, showing food values and cuts of meat, together with magazines related to the course, are included in the equipment.

A Short Course in Practical Housekeeping

THERE are a large number of young women who from lack of time and means, are unable to take an extended course of study, but who desire to increase their usefulness by special training along certain lines. The teaching in this course will be adapted to the needs of such students and will be intensely practical. It is open to all young women over eighteen years of age, previous education not being considered. The course will open October 1st, and continue through the winter term.

FIRST TERM.

Cooking. The cooking of vegetables, cereals, beverages, breads, and simple pastry will be taught during the fall term. The stoves, fuels, effect of heat on food, etc. will be discussed.

Sewing. Each student makes a model book, covering the full course in sewing. This is followed by drafting, cutting, making a full set of underwear for which each pupil will furnish her own materials.

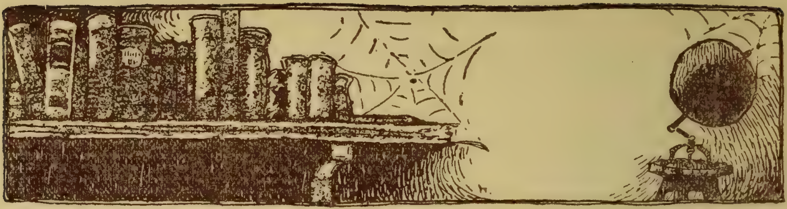
SECOND TERM

Cooking. Salads, cakes, desserts, the planning and serving of meals will comprise the work of the second term. A few lessons in invalid cookery will be given. The keeping of household accounts will be discussed.

Home Nursing. This implies simple home care of the sick with a discussion of furnishings and care of the sick room.

Dress Making. The pupil will be taught the use of a tailoring system, and the cutting, fitting, and making a woolen dress. Pupil will furnish materials and cut, fit, and make a dress for herself.

"I regard the discovery of a dish a far more interesting event than the discovery of a star."—Hurion de Pennesey.



Department of English and History

Professor Macarthur **Associate Professor Daniels**
Miss Lewis

THE courses in English aim at accomplishing two principal objects. The first is that of securing ease, clearness, and directness of expression; the second that of promotion of culture. A fact which is gaining an ever wider recognition today is that no matter how well trained technically men or women may be, they will not be able to make satisfactory progress along professional lines unless capable of conveying their ideas to their fellow-workers, and of keeping in touch with the advances made in their professions. Hence it follows that throughout the course much emphasis is placed upon rhetoric; and not only upon its theoretical, but especially upon its practical side. Facility in writing is not to be acquired so much by the study of a book of rules as by the actual practice of writing. For this reason the courses in rhetoric require the continuous composition of themes which are carefully criticised and returned to the student for re-writing or revisal, as the case may demand.

English

The educated world of the present time has a much broader conception of the word profession than that of twenty-five years ago. Engineering—mechanical, civil, or electrical—and domestic science are now coming to be recognized as professions, and very properly so. But while the world is granting such a recognition and according a corresponding social status, it expects from the new professions that broad and general culture which was distinctive of the old. The study of literature has been admitted to be one of the foremost influences making for culture, and on this account it receives a deservedly prominent position in the work of the department.

"Thought is the first faculty of man; to express it one of his first desires."—Abbe Royal.

A thorough course in bibliography and the use of standard books of reference is an especially valuable feature of the course offered by this department. Opportunity to pursue advanced work in English is offered to those students wishing to do so.

No student will be admitted to college classes in English whose knowledge of spelling and grammar is notably deficient.

Higher English Grammar. A thorough discussion of the principles of
C, B, A. English Grammar, accompanied by practical exercises
based upon selections from literary masterpieces.

Required of all Senior Preparatory students, throughout the year, 4 hours.

Composition-Literature. This course is primarily intended to present
1, to the student the elementary principles of Composition and Rheto-
2, ric. Special stress is laid upon written work. Selections from the
3. best English and American authors are used as models.

Required of all Freshmen, first and second terms, 4 hours. Credit 48 hours. Third term, 5 hours. Credit 60 hours.

Elementary Bibliography. Classification and reference. The principal schemes of classification and the arrangement of library catalogs
4. are explained, giving special attention to the methods employed in
the college library. A study is made of the general reference books, such as dictionaries, encyclopedias, and periodical indexes. Library work consists of assigning subject headings to the magazines taken by the various departments, writing a few sets of cards, and the practical use of the general reference books.

Required of all Freshmen, first term, 1 hour. Credit 12 hours.

Elementary Bibliography. Reference. The aim of this course is to familiarize students with the use of the important special books of refer-
5. ence. The books are examined and studied in groups, such as hand-
books of general information, hand-books of history, biographical dictionaries, and so forth. Practical work is given in the use of each group, and general bibliographies are prepared on assigned subjects.

Required of all all Freshmen, second term, 1 hour. Credit 12 hours.

History of English Literature. A reading course, accompanied by
6, 7, 8. lectures upon the history of English literature.

Required of all Sophomores, except those in the Agricultural course, throughout the year, 5 hours. Credit 180 hours. Course 6 only is required of Agricultural students, 5 hours. Credit 180 hours.

Debating. The principles of debating, accompanied by practical **9, 10.** work.

Required of all Juniors, first and second terms, 1 hour. Credit 24 hours.

Advanced Bibliography. The purpose of this course is to train students in the methods of research. The use of general indexes is re- **11.** viewed, including the indexes to government and state documents, and publications of learned societies. Each student prepares an extended bibliography, selecting his own subject. Regular students select subjects leading to their thesis.

Required of all Juniors, third term, 1 hour. Credit 12 hours.

Advanced Rhetoric. A theme course, with collateral study of model **12, 13.** English Essays and Orations in the first and second terms respectively.

Required of Juniors in the Engineering courses, and of Seniors in all other courses, first and second terms, 2 hours. Credit 48 hours.

Literary Criticism. **14.** The elements of literary criticism.

Required of Juniors in the Engineering courses, and of Seniors in all other courses, third term, 2 hours. Credit 24 hours.

Technical English. This course is designed to meet the needs of students desiring to pursue some special line of writing. The work will **15, 16, 17.** consist, for the most part, of individual conferences with the instructor, in which way deficiencies may best be remedied, and the fullest development of the student secured.

Elective. Open to students of the Junior and Senior years, throughout the year, 3 hours. Credit 108 hours.

Commercial English. A course designed for the careful considera- **18.** tion of various forms of business English, with special reference to the writing of business letters.

Required of Advanced Stenography students, first term, 5 hours.

* * *

Equipment

THE general library of the college offers exceptional advantages to the students of this department. The library is not only the finest in this part of the Southwest, but, from the standpoint of the English student it can hold its own with many found in well known institutions in the East. It contains all the English masterpieces, and has a particularly large representation of American literature. In addition to this, its accessions include copies of all contemporary works which receive the favorable notice of the press. The most important literary magazines come regularly to it, and in this way the students have every opportunity of keeping themselves informed as to the most recent movements in the literary world.

There are several flourishing literary societies in the college, and students are urged to seek admission to these and to engage actively in their work.

A dramatic club has been formed under the auspices of the department and during the past year gave two eminently successful performances. Membership in this organization gives the students an opportunity to receive training in vocal expression. The club has in its possession four sets of scenery and all the appliances for staging a modern play.

During the coming year some lectures devoted to art and travel will be given in connection with the work of the department. They will be illustrated by the large stereopticon recently bought by the college.

* * *

History

THE ends aimed at in teaching this subject are: (1) to acquaint the student with the most important facts of ancient, mediaeval, and modern history; (2) to aid him in interpreting these facts into the prevailing thought of the people at the time of the events; (3) to direct the students attention to such literature as will assist him in getting a vivid idea of the life of the times of which the history treats.

General History. **B.** The histories of Greece and Rome in outline.

Required of all Senior Preparatory students, first term, 3 hours.

English History. **A.** The history of England in outline.

Required of all Senior Preparatory students, second term, 4 hours.

General History. **1.** History of the Middle Ages.

Required only of students in the General course, third term, Sophomore year, 5 hours. Credit 60 hours.

"History is philosophy teaching by examples."—Thucydides.

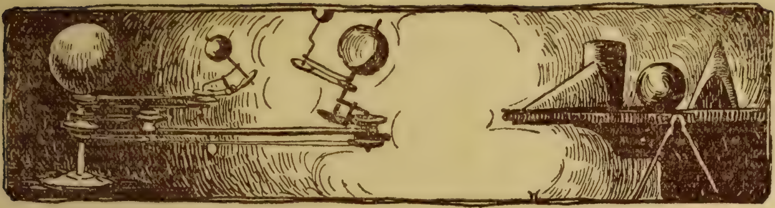
2. *Advanced American History.* A study of the history of the United States from 1760 to 1865, with special reference to the leaders of the times, and of those men whose work has contributed most largely to the building of the nation as we now have it.

Required of Household Economics and General Seniors, second term, 5 hours. Credit 60 hours.

* * *

Equipment

THE department of history is reasonably well equipped. It possesses MacCoun's Ancient and Classical Charts, MacCoun's Mediaeval and Modern Charts, Johnston's Imperial Chart of the World, Johnston's Imperial Map of Europe, Appleton's Universal Cyclopedia and Atlas, (12 volumes), Larned's History for Ready Reference, (5 volumes), and other works. The general library of the college contains a large collection of standard historical works, and also has in its possession a considerable amount of material which will serve the purposes of original investigation.



Mathematics and Astronomy

Professor Hagerty

Mathematics

Algebra. General review from the beginning of algebra to evolution;
C. theory of exponents including logarithms, radicals, quad-
B. ratic equations, inequalities, ratio, proportion, variation,
A. and progressions. Text-book, Milne's Academic Algebra.

Required of all Senior Preparatory students, throughout the year, 5 hours.

Plane Geometry. Nearly one-third of the time is given to original ex-
1, 2. ercises. Text-book, Wentworth's Plane and Solid Geometry.

Required of all Freshmen, first and second terms, 5 hours. Credit 120 hours.

Solid Geometry. In order to add interest to the study of this subject
3. and to fix in the mind the propositions demonstrated, many numerical exercises are given.

Required of all Freshmen, third term, 5 hours. Credit 60 hours.

Plane Trigonometry. Besides the ordinary text-book work a few
4. practical problems are given requiring students to use a surveyor's transit for measuring both horizontal and vertical angles.

Required of all Sophomores, first term, 5 hours, Credit 60 hours.

Higher Algebra. Indeterminate equations, undetermined coefficients,
5. binomial theorem (any exponent), permutations and combinations, series, and theory of equations.

Required of all Sophomore Engineers, elective for all other students who have completed Mathematics 4, third term, 5 hours. Credit 60 hours.

Analytic Geometry. Loci and their equations, straight line and circle, transformation of co-ordinates, parabola, ellipse, hyperbola, general

6 equation of the second degree, discussion of a few of the higher plane curves, and an introduction to geometry of three dimensions.

Required of all Junior Engineers, elective for all other students who have completed Mathematics 5, first term, 5 hours. Credit 60 hours.

Differential and Integral Calculus. The topics treated are those 7, 8. usually taken up in accordance with well-established usage; and many practical problems from mechanics are solved by the student in order to maintain his interest, and to fix in his mind the principles which have been explained. Taylor's Calculus is the text-book used.

Required of all Junior Engineers, elective for all other students who have completed Mathematics 6, second and third terms, 5 hours. Credit 120 hours.

* * *

Astronomy

General Astronomy. Not only astronomical facts and principles will 1. be studied, but also the methods by which these facts have been ascertained. Night observations constitute an important part of the course. The text-book used is Young's General Astronomy.

Required of Sophomores in Civil Engineering and of Juniors in the General course and in the course in Household Economics, elective for all other students who have completed Mathematics 4 and Physics 1, 2, and 3, 5 hours plus 2 hours practice. Credit 72 hours.

General Astronomy. Continuation of Astronomy 1, about half the 2. 3. time being devoted to night observations.

Required of Juniors in the General course and in the course in Household Economics, elective for all other students who have completed Astronomy 1, second and third terms, 2 hours or equivalent in practice. Credit 48 hours.

* * *

Surveying

The instruction in this subject will be such as to render the stu- 1. dents familiar with the principal instruments and methods used in plane and topographical surveying. Levels will be run, surveys made, notes plotted, and areas computed. Students will have practice in determining the true meridian and latitude, by observation of the north star and of the sun.

Required of all (except Household Economics) Sophomores, second term, 1 hour plus 8 hours practice. Credit 60 hours.

"To a far greater extent than any other science astronomy enlarges the mind and gives a true conception of the relation of man to his physical environment."

Equipment

THIS department has a portable equatorial telescope with 4½ inch objective and magnifying powers ranging from 50 to 400; planetarium, star lantern with slides, star atlases, planisphere, 24-inch slated globe, trigonometer, Kennedy's dissected geometrical blocks; a surveyor's compass, three transits, one of which has a gradienter and all have solar attachments, engineer's level, plane table, protractors, aneroid barometer, optical square, planimeter, pantograph, chains, tapes, leveling rods, poles, pins, Fuller's spiral slide rule, and Bausch and Lomb-Zeiss stereo-binocular magnifying 7½ diameters.

Students will be held responsible for all equipment used by them, and any loss or breakage must be made good to the college.

The department library contains many valuable books of reference, and several periodicals.

Department of Engineering

Professor Paul
Associate Professor Sage

Professor Flemming
Mr. Miller

WHILE Mechanical Engineering has been, up to the present time, the only regular engineering course offered, the ever-increasing number of students has made the demand so great for instruction in other lines of the profession that the Board of Regents saw fit this year to enlarge the scope of the institution by offering instruction in both Electrical Engineering and Civil Engineering in addition to the present Mechanical Engineering Course. This gives the institution three good engineering courses modeled, as nearly as conditions will allow, after those of the best engineering schools of the country.

* * *

Mechanical Engineering

INSTRUCTION in this course is given by lectures, recitations, and practice, so combined as to constitute a symmetrical course of study. The endeavor is to provide the student with a broad foundation of general and theoretical knowledge, together with a liberal amount of practice in the line of his chosen profession.

Much time is necessarily devoted to higher mathematics and to technical subjects; yet certain fundamental studies, necessary to a broad and liberal education, such as physics, chemistry, languages, literature, and political economy, are provided for.

The student is given a thorough training in the theoretical branches underlying the science of machines, together with a clear understanding of the practical construction of mechanical devices.

Shop practice offers practical illustrations of the precepts taught in the class-room, and is a most essential part of the Mechanical Engineering Course.

"There is not an hour of youth but is trembling with destinies—not a moment of which, once past, the appointed work can ever be done done again or the neglected blow struck on the cold iron."—Ruskin.

No attempt is made to teach trades, but the course in shop practice furnishes such training as will insure marked advancement subsequent to graduation.

The practice is supplemented by lectures on the care and use of the various tools, machines, and materials used in the mechanical engineering profession.

Free-hand Drawing. Outline drawing from blackboard; systematic drill in the execution of curves and scrolls; principles of perspective as
B. applied in the drawing of simple type forms, shop models, etc.;
A. relative proportion and the study of the values of light and shade
are developed in the execution of drawings of buildings, corners of rooms, etc.; lettering and conventional ornament are taken up. The advanced work is given with particular reference to the course pursued by the student.

Required of all Senior Preparatory students and Practical Mechanics men, first and second terms, 2 hours practice.

Mechanical Drawing. Instruction in the use and care of drafting in-
1. struments; exercises in geometrical construction, lettering, plane
2. projections, shading, and coloring; followed by detail and as-
3. sembled working of machinery with trackings and blue prints
4. therefrom.

1 and 2 required of all Engineers, Freshmen, first and third terms, 3 and 4 required of Mechanical and Electrical Engineers, Sophomores, second and third terms, 4 hours practice each term. Credits 48 and 96 hours.

Machine Design. Mechanical Drawing is merged into Machine Design, of which it forms an important part, and affords constant oppor-
5. tunity for further practice in making drawings of standard types
6. of machinery. The work in this subject consists chiefly in the
7. design of the elements of machines, such as bolts, rivets, riveted
joints, journals and bearings, pulleys, gears, cams, etc., also the complete design of a steam boiler.

Required of Mechanical Engineers, Juniors, second and third terms, 4 hours practice, Seniors, first term, 6 hours practice. Credit 84 hours.

Descriptive Geometry. In this subject the principles of orthographic projection, development of lines and surfaces, etc., are fully discussed **8.** in the class-room; and a great variety of problems, illustrating both general and special cases, are solved and constructed in the drafting room.

Required of Sophomores of all Engineering courses. second term, 5 hours. Credit 60 hours.

Elementary Mechanics. In this subject the general laws of statics and dynamics are studied with reference to solids, liquids and gases; **9.** and the fundamental principles are applied to the solution of a wide range of problems.

Required of all Junior Engineers, first term 4 hours. Credit 48 hours.

Mechanism. Under this head are studied the principles underlying the action of the elementary combinations of which all machines are **10.** composed: the communication of motion by gear wheels, belts, cams, screws, link work, etc.

Required of Junior Mechanical and Electrical Engineers, second term, 5 hours. Credit 60 hours.

Graphic Statics. This subject treats of the solution of engineering **11.** problems by means of drafting room methods, and the design of roof and bridge trusses by simple but accurate methods.

Required of all Junior Engineers, first term, 4 hours practice. Credit 24 hours.

Steam Boilers and Engines. Under this head the principles underlying the construction of the various forms of steam boilers are studied. **12.** Attention is given to the various details in their design or operation, such as the size of flues, thickness of plates, styles or riveting, bracing, the amount of grate and heating surfaces, etc., as well as to various attachments.

The student makes a study of the general principles of the steam engine and of the various types in common use, and investigates the many problems relating to their structure and efficiency.

Required of Junior Mechanical and Electrical Engineers, third term, 5 hours Credit 60 hours.

Valve Gears. In this subject it is endeavored to make the student
familiar with the different types of valves used on all kinds of en-
13. gines, and the various mechanisms by which they are guided and
regulated in their action.

Required of Senior Mechanical Engineers, first term, 3 hours. Credit 36 hours.

Hydraulics. This includes the study and application of the principles
of the subject to the various problems involved; such as the flow of water
14. through orifices, short and long tubes, conduits, and in open
channels; gauging streams, measurements of water power, etc.

Required of all Senior Engineers, first term, 5 hours. Credit 60 hours.

Applied Mechanics. The work of the first term in this subject em-
braces a study of the laws of equilibrium, motion, work, and energy, as
15. applied to particles and rigid bodies; also a study of the center
of gravity and the moment of inertia. The stresses in the steam en-
gine are investigated and the subject of friction is carefully taken up.

Required of all Senior Engineers, first term, 5 hours. Credit 60 hours.

Applied Mechanics. The second term of work in the subject con-
siders the conditions of stress, strain, and elasticity of materials. Bend-
16. ing moments in beams are investigated under various conditions of
loading, and the strength of building materials is very carefully looked into. Bridge and roof trusses are discussed, and the stresses in structures are figured. Experiments to determine the strength of different building materials accompany recitations.

Required of all Senior Engineers, second term, 5 hours. Credit 60 hours.

Electrical Engineering. The work in this subject is given so that the
student may have a good working knowledge of the ordinary forms of
17. electrical apparatus, and be competent to handle the same intelli-
gently. The theoretical work leads to the practical understanding of the work given later in engineering power plants.

Required of Senior Mechanical Engineers, second term, 5 hours. Credit 60 hours.

"In the schools of applied science and technology, as they are carried on today in the United States, involving the most thorough and scholarly study of principles directed immediately upon the useful arts, and rising in the higher grades into original investigation and research, is to be found almost the perfection of education for young men."—Francis A. Walker.

Thermodynamics This subject treats of the solution of problems involving the action of heat as applied to steam engines, gas engines, and 19. other thermal motors. The use of compressed air and refrigerating machines is also thoroughly discussed, so that the student may become familiar with present day practice.

Required of Senior Mechanical Engineers, second term, 4 hours. Credit 48 hours.

Engineering Structures. This subject embraces a study of the design 20. and construction of foundations and superstructures, the selection of materials, superintendence, specifications, etc.

Required of Senior Mechanical and Civil Engineers, third term, 3 hours. Credit 36 hours.

Engineering Laboratory. In this subject tests are made with the engine and boiler plant, both with and without the electric plant in con- 21. nection. Tests are also made on gasoline engines, air compressor, determination of moisture in steam, etc. Steam gauges are accurately tested, and the student is given a careful training in engineering practice.

Required of Senior Mechanical Engineers, third term, 6 hours practice. Credit 36 hours.

Carpentry and Woodturning. Reading drawings, sawing, planing, 22. gauging, chiseling, boring, etc., together with exercises in turning between centers, face-plate work, chuck work, ornamental turning and finishing and polishing.

Required of all Freshmen Engineers and Practical Mechanics men, first term, 6 hours practice. Credit 36 hours.

Forging. Care of fire, heating, drawing out, bending, upsetting, swag- 23. ing, welding, tempering, annealing, tool making and dressing, ornamental iron work.

Required of all Freshmen Engineers and Practical Mechanics men, second term, 10 hours practice. Credit 60 hours.

Advanced Carpentry. Glue joints, panel work tables, bookcases, etc. Timber framing and the construction of miniature buildings will 24. be carried far enough to show the best methods of framing, "laying out," and cutting, hip, valley, or jack rafters.

Required of all Freshmen Engineers and Practical Mechanics men, third term, 6 hours practice. Credit 36 hours.

Pattern Making. Pattern and core boxes for the molding of simple
25. machine parts.

Required of Sophomore Mechanical and Electrical Engineers, first term, 10 hours practice. Credit 60 hours.

Foundry Practice. Mixing and tempering molding and core sands;
26. molding in green and dry sand, skin drying, making and drying
cores.

Required of Sophomore Mechanical and Electrical Engineers, third term, 6 hours practice. Credit 36 hours.

Bench Work in Iron. Laying out work, chipping, filing, fitting, scrap-
27. ing, polishing, key-seating, drilling and tapping, hand work with
machine tools.

Required of Junior Mechanical and Electrical Engineers, first term, 6 hours practice. Credit 36 hours.

Machine Work. Elementary machine-tool work with drill-press,
28, 29. planer, shaper, and lathe; production of finished machine
elements.

Required of Junior and Senior Mechanical Engineers, third and first terms, 6 and 4 hours practice respectively. Credit 60 hours.

Heating and Ventilating. This subject is given as a series of lectures
with problems to be handed in by the student. The correct manner of
30. heating and ventilating public buildings, the home, etc. is ex-
plained in a practical way.

Required of Senior Mechanical Engineers, first term, 2 hours. Credit 24 hours.

Applied Mechanics Laboratory. The student passes two afternoons
each week in applying the principles learned concerning strength of ma-
31. terials. Tests are made of iron, steel, rope, wire, chains, wood,
stone, brick, etc.

Required of all Senior Engineers, second term, 4 hours practice. Credit 24 hours.

Business Law. A course of lectures by members of the College fac-
32. ulty supplemented by practical talks from prominent local law-
yers on business law as applied to engineering.

Required of all Senior Engineers, second term, 2 hours. Credit 24 hours.

33. *Engineering Power Plants.* The work in this subject consists of the investigation of the sources of power and a comparison of the relative merits of each. Most economical arrangements are considered. The application of electricity to power, lighting, street railway work, and mining work is also considered.

Required of Senior Mechanical and Electrical Engineers, third term, 5 hours. Credit 60 hours.

34. *Contracts and Specifications.* A course of lectures giving the student a knowledge of contracts as applied to engineering work, together with instruction in writing up specifications for different kinds of work.

Required of all Senior Engineers, third term, 2 hours. Credit 24 hours,

* * *

Equipment

THE department has two commodious buildings devoted to its work. One has rooms for a forge shop, foundry, and storage; the other contains two recitation rooms and a hall, an engine and boiler room, and rooms for wood work and machine work. An excellent department library containing standard works pertaining to the engineering professions is accessible to students.

* * *

Mechanical and Electrical Laboratory

The power equipment of the college consisting of the following engines, boilers, etc., affords opportunity for investigation, by the students, on the subject of steam and steam engine practice:—one 40 horse-power tubular boiler, one 50 horse-power Hoppes feed water heater and purifier, one duplex steam pump, one 30 horse-power Weston automatic engine, one 8 horse-power Shipman engine and boiler, one 13 horse-power Priestman oil engine, one 15 horse-power Witte gasolene engine, one air pump and reservoir. The equipment also includes indicators for steam and oil engine testing, one standard steam gauge tester, three planimeters, a gas meter, two calorimeters, one tachometer, one Olsen testing machine of 60,000 lbs. capacity with full equipment for tension, compression, and transverse tests. A current meter, hook gauge, and other instruments are available for work in hydraulics.

"The technical school has given this country a class of young men the like of which are seen nowhere else in the world. A famous English iron and steel man said to me not long ago, 'It is not your superior ores nor your great mills that impress me most, but the class of young men that you have in the iron industry here. We have no such corresponding class in England.'"—Carnegie.

One 12 horse-power 250 volt dynamo, one 8 horse-power motor with switchboard instruments, one Weston portable ammeter, one Weston portable voltmeter.

The Machine Shop has one 16-inch x 6 foot tool room lathe with compound rest and taper attachment, one 14-inch x 8 foot standard engine lathe, one 12-inch x 5 foot standard engine lathe, one 24-inch x 24 inch x 6 foot planer, one 14-inch shaper, one 22-inch power drill-press, one sensitive drill, one gas pipe threading and cutting off machine, one power hacksaw, one improved double wheel emery grinder; also a large number and good assortment of drills, chucks, small tools, and machine attachments.

The Wood-working Shop contains fourteen benches, six 10-inch lathes, one 18-inch x 10 foot lathe, with over-hanging face-plate capable of turning work up to 80 inches in diameter, one combination rip and cross-cut circular saw, one Fox trimmer, one large grindstone with Brown and Sharp frame, and a good supply of small tools and appliances.

In the forge shop are twelve forges of the latest down-draft model with improved underground arrangements for the blast and exhaust pipes, one forge being equipped with a hand blower.

Each forge is fitted with a full set of hammers, tongs, swages, fuller, etc. An 18-inch hand-power drill press and a punching and shearing machine form a part of this equipment.

The foundry has a brass furnace, the usual small tools, and a number of flasks for moulding.

* * *

A Two Years' Course in Practical Mechanics

THE course is established for the benefit of those wishing to specialize in Manual Training operations or who have not the time to take the regular college course requiring from four to six years.

It is not the intention to teach trades in this course, but the advantages of the shops are offered free to young men who can not enter regularly in the college classes. Since instruction rather than money-making is the object, it can readily be seen that the work under skilled instructors has many advantages over the ordinary trade apprenticeship.

While there are no educational requirements for admission to this course, the student must be at least sixteen years of age, and show his fitness for the work. The amount of shop practice work in the first year is greatly in excess of that required of Freshmen in the Mechanical Engineering course, and is of the same grade. During the second year the student will be allowed to specialize in either wood or iron work and the drawing pertaining thereto.

* * *

Electrical Engineering

THIS course is arranged to supply the demand for men who have a practical knowledge of electricity, as well as a thorough knowledge of the principles and laws governing the forces with which they have to deal. For the first two years the course is identical with the Mechanical Engineering course, but branches out separately during the third year. This is for the reason that the two courses must through necessity run nearly parallel, as a well equipped electrical engineer must also be a mechanical engineer, and must have some training in the principles of steam and hydraulics.

Dynamo Design. This subject considers the materials of construction
6, and methods of armature winding, followed by the design of some
7. form of dynamo together with the complete calculations for same.

Required of Electrical Engineers, Seniors, first and second terms, 6 and 4 hours respectively. Credit 60 hours.

Electricity and Magnetism. This subject treats of the elementary points of Electrical Engineering, giving the student a firm foundation
35. for his future work. Current electricity, potential, resistance, quantity, induction, hysteresis, elementary principles of the dynamo and motor, etc. are treated in detail.

Required of Junior Electrical Engineers, third term, 2 hours. Credit 24 hours.

Electrical Laboratory. This laboratory work follows the work given
36. in Electricity and Magnetism, and allows a practical application of the principles and methods developed.

Required of Junior Electrical Engineers, third term, 6 hours practice. Credit 36 hours.

Direct Current Machines. A continuation of the course in Electricity and Magnetism applying it to direct current machinery. The
37. various types of machines are studied together with the elements of design.

Required of Senior Electrical Engineers, first term, 5 hours. Credit 60 hours.

"Rough and ready methods are going out and the untrained handy-man with them. Nowadays, to do the work of the world as the world will have it done and will pay for having it done, requires that a man be trained to the exactitude of scientific methods."—J. G. Schurman.

Electrical Laboratory. The work in these subjects follows closely the work given in Direct Current Machines. The student is made fa-
38, 42. miliar with the actual working conditions of a power and lighting plant by numerous tests. Methods are studied for determining efficiencies of motors and dynamos, characteristics, regulation, and output. Each test must be carefully worked out by the student and handed in for inspection and correction.

Required of Senior Electrical Engineers, first term, 4 hours practice, and third term, 6 hours practice. Credit 60 hours.

Alternating Current Machines. A study of the various types of al-
39. ternating current machines together with the question of transmission and distribution of power.

Required of Senior Electrical Engineers, second term, 5 hours. Credit 60 hours.

Electrical Measurements. This subject gives a detailed study of the various measuring instruments used in electrical work. An investigation
40. is made of questions of accuracy and sources of error in each, and corrections are made where needed. A study of the character and behavior of materials used in Electrical Engineering is also pursued.

Required of Senior Electrical Engineers, second term, 3 hours. Credit 36 hours.

Telephone Engineering. In this subject, the design and construction of both overhead and underground lines is discussed. Arrangement of
41. local and long distance lines, central offices, party lines, etc. is given in detail.

Required of Senior Electrical Engineers, third term, 3 hours. Credit 36 hours.

* * *

Equipment

At present students of this course use the equipment of the Mechanical Engineering department for laboratory work.

* * *

Civil Engineering

THE instruction in Civil Engineering is given by means of recitations and lectures, supplemented by field work, drafting-room work and laboratory work. The student is taught the use of Civil Engineering instruments and their adjustments together with the principal points in connection with land, topographical, irrigation, railroad, city, and mine surveying. Great stress is laid upon problems in irrigation and a thorough study is made of the subject. The strength of materials and their constructive values are investigated, and the student is given valuable information in design work.

"Nature can be controlled only by obeying her laws."
—Bacon.

Spherical Trigonometry. A short course given to familiarize the
45. student with the principles and formulas of this branch of the subject as applied to civil engineering work.

Required of all Sophomore Civil Engineers, second term, 2 hours. Credit 24 hours.

Topographical and City Surveying. This work consists of field work and plotting of results in the drafting room. Computations are made,
46. together with scale drawings, profiles, and contour maps. The student is given problems of a practical nature and an attempt is made to approach actual civil engineering work as nearly as possible.

Required of Sophomore Civil Engineers, third term, 1 hour and 8 hours practice. Credit 60 hours.

Railway Surveying. These courses take up in detail the construc-
47. tion of a railroad from the preliminary survey through each step
48. to completion. Curves and grades are carefully considered to-
49. gether with the adjusting of the line to the contour of the country.

Required of Junior Civil Engineers, first term, 1 hour and 2 hours practice, second term, 2 hours and 6 hours practice. third term, 2 hours and 6 hours practice. Credit 144 hours.

Road Construction. This subject gives the student a knowledge of the problems in road and highway building which confront the engineer of
50. the present day. Construction of roads under all conditions is taken up in detail, together with the design of small bridges, culverts, etc.

Required of Junior Civil Engineers, third term, 5 hours. Credit 60 hours.

Stereotomy. This subject applies the principles of Descriptive Geom-
51. etry to the design of masonry structures, such as intersecting walls and arches, abutments, piers, and culverts.

Required of Senior Civil Engineers, first term, 5 hours. Credit 60 hours.

Highway Engineering. The work covered by this subject consists largely of the location and maintenance of roads, and carries the
52. work commenced in Road Construction to completion. One afternoon each week is used in field or draftingroom work to illustrate the principles studied.

Required of Senior Civil Engineers, first term, 4 hours and 2 hours practice. Credit 60 hours.

"Engineering became a science when the first stone arch carried its load in safety."—Thomas C. Clark.

Irrigation Engineering. This subject is one of the most important in
53. the course and treats of the problems of irrigation in detail.

Required of Senior Civil Engineers, second term, 5 hours. Credit 60 hours.

Irrigation Field Work. The work of Irrigation Engineering is made
54. practical in this subject by means of field and draftingroom work.
The student is given a chance to see irrigation under actual conditions.

Required of Senior Civil Engineers, second term, 6 hours practice. Credit 36 hours.

Bridge Design. The design of both railroad and highway bridges is
55. taken up in this course, and the student is required to complete
a problem, handing in drawings and calculations in detail.

Required of Senior Civil Engineers, third term, 10 hours practice. Credit 60 hours.

Water Supply and Sanitary Engineering. This subject gives the
student a knowledge of conditions concerning water supplies for cities,
56. homes, etc., together with a discussion of the sanitary questions
of the present day applied to drainage of buildings and lands, treatment and disposal of sewage, and the sewerage of cities and towns.

Required of Senior Civil Engineers, third term, 5 hours. Credit 60 hours.

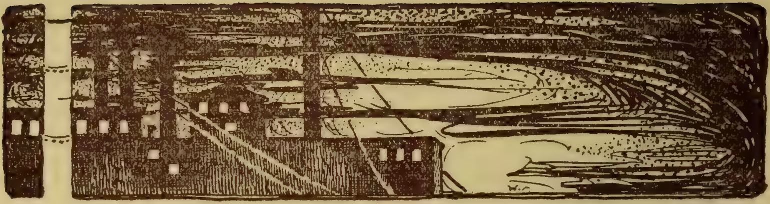
Masonry Construction. This subject treats of the elements and principles of construction work as applied to buildings and bridges, and paves
57. the way for instruction in Engineering Structures and Bridge
Design.

Required of Senior Civil Engineers, second term, 3 hours. Credit 36 hours.

* * *

Equipment

The equipment used by this course is that of the Mathematics department and listed at the end of the description of that department.



Political Economy and Psychology

President Foster

Political Economy

Political Economy. In this subject the student is made sufficiently acquainted with the economic conditions affecting public questions of **1.** the day, particularly in the United States, to judge of them intelligently. Public questions and the economic principles which underlie them are presented in such a form as to make them attractive and easy to understand. Application of the principles of political economy is made to the leading questions of the day, such as socialism, taxation, the national debt, free trade and protection, bimetalism, United States notes, banking, the national banking system, the labor problem, and co-operation.

The first half of the term is given to a study of principles and the rest to their application to practical questions. The whole course is interspersed with problems intended to stimulate the student to think out the application of the principles for himself. Among the subjects considered are the following: principles that control the production of wealth and inquiries as to the possibility of increasing wealth; investigation of the causes that give value to what is produced and explanation of the methods by which products are exchanged for each other by means of money and various forms of credit; questions pertaining to the distribution of what has been produced among the persons who have had a share in the production, that is, the principles which govern the respective sum which each party to the production, the laborer and the capitalist, should receive out of the total amount. Laughlin's Elements of Political Economy is used as a text-book.

Required of all Juniors, second term, 4 hours. Credit 48 hours.

"The good of each tends to the good of all, as the good of all tends to the good of each."—Bastiat.

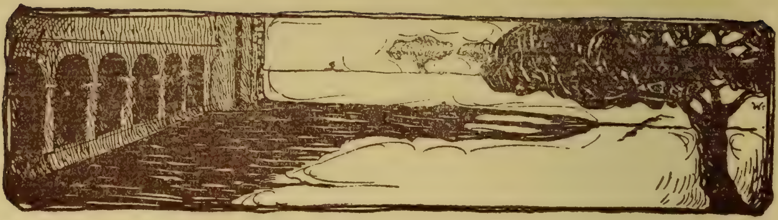
Agricultural College

Psychology

1. *Psychology.* This course is intended to give a general knowledge of Elementary psychology. It includes the following subjects: structure and functions of the sense organs and the nervous system; consciousness and attention; sensations, their classification and analysis; perception and its cultivation; association of ideas and cultivation of memory; imagination and its culture; concept, judgment, reasoning, and thought culture; feeling, emotion, and the formation of correct emotional habits; the will, its foundations, types of action, development and cultivation. Halleck's Psychology and Psychic Culture is used as a text-book.

Required of Domestic Science and General Seniors, first term, 3 hours. Credit 36 hours.

"All our progress is an unfolding like the vegetable bud."
—Emerson.



Department of Spanish and Latin

Professor Hoblit

Spanish

FROM a practical point of view Spanish is without doubt the most useful of the modern languages for the student in the Southwest. It is therefore given a prominent place in the curriculum of this college. Students who desire to obtain a command of the spoken language may here enjoy special advantages. The presence of a large number of Spanish-speaking students affords constant opportunities for practice in hearing and speaking the language every day; while additional practice may be gained by visits to the court-rooms, churches, and stores of the neighboring towns. Mexico is only forty miles away, and many young men find there a rich field of opportunity as soon as they are qualified by a sufficient knowledge of Spanish. For those who may desire to make a purely literary study of the language abundant facilities are provided in the library equipment of the department.

Three courses are offered by the college, each extending through thirty-six weeks. Students are expected to take the courses in the order in which they are outlined below. The work of the first and second years is intended to give a practical introduction to the language. The third year is given to advanced reading, with particular emphasis upon literary interpretation.

Elementary Course. Giese's First Spanish Book and Reader, with
1. additional work upon the irregular verbs and syntax. In addition
2. to the selections from Gil Blas found in Giese, Alarcon's Capitan
3. Veneno is read during the spring term. Practice in translation,
writing, and conversation.

Required of all Senior Preparatory students who do not elect Latin. Three terms, 5 hours each.

"We have learned that the round-about course, through other tongues, to the comprehension and mastery of our own, is the shortest."
—William Dwight Whitney.

Intermediate Course. Reading of representative modern novels and
4. Jevon's Nociones de Economia Politica, supplemented by study of
5. Roman y Salamero's Castellano Actual and Epistolario Caste-
6. llano. Writing and practice in conversation are made prominent
features of the work.

Agricultural College

Required of students of Spanish Stenography and of all Freshmen who do not elect Latin, except students of Agriculture and of Engineering. Elective to others who have completed the elementary course or an equivalent. Three terms, 5 hours. Credit 180 hours.

Advanced Course. The fall term is given to reading of representative
7. modern dramas; the winter term to classical dramas; the spring
8. term to selections from Don Quixote and a brief survey of the
9. history of Spanish literature.

Elective to all students who have had the equivalent of the preceding courses, Three terms, 5 hours. Credit 180 hours. Not given to a class of less than six.

Equipment

This department is supplied with a good general assortment of literary works, including Rivadeneyra's Biblioteca de Autores Espanoles in seventy volumes and a considerable number of works of recent novelists, poets, and critics. There are also reference grammars, general and technological dictionaries, manuals of correspondence and business forms, and a complete set of the Hoelzel wall maps for use in practice in conversation.

* * *

Latin

THE courses in Latin are limited to three years, the work accomplished being the usual readings, accompanied with composition, from Caesar, Cicero and Vergil. The Roman pronunciation is used. A good knowledge of English grammar is an indispensable prequisite to a profitable study of Latin.

Students may at their option substitute Latin for the required work in Spanish, except in the case of students of Spanish Stenography. Students of Agriculture may elect second and third year work.

Agricultural College

Elementary Course. Lowe and Butler's Bellum Helveticum, revised.
1. Particular attention is given to the elements of the language, in-
2. flection of nouns and verbs, and the general principles of syntax.
3. Attention is directed to the etymological relations of English and
Latin.

Required of all Senior Preparatory students who do not elect Spanish. Three terms, 5 hours.

Second Year Course. Selections from Books II to VII of Caesar's
4. Gallic War are read during the fall and winter terms. The
5. spring term is given to selections from Cicero. Exercises in oral
6. and written composition based upon the texts throughout the year.

Required of all Freshmen who do not elect Spanish, except students of Agriculture and of Engineering. Three terms, 5 hours. Credit 180 hours.

Third Year Course. The fall term is given to selections from Cicero;
7, 8, 9. the winter and spring terms to Vergil's Aeneid.

Elective to all students who have had the equivalent of the work of the first and second years. Three terms, 5 hours. Credit 180 hours. Not given to a class of less than four.

German. A one year introductory course is offered in German. The
1, 2, 3. work consists of drill in grammar and pronunciation, easy
reading and translation. Collar's First Year German.

Required of Sophomores of the General Course. Elective to other college students. Three terms, 5 hours. Credit 180 hours.

Military Science and Tactics.

Colonel Edwards

THE primary object of this department is to furnish the country each year with a class of young men who are fitted to become efficient officers of volunteers in time of war.

For this reason the department is fostered by the United States government, and is practically maintained by it without expense to the college.

The professor is an officer of the army detailed for this duty by the President of the United States, and the equipment—of the value of about five thousand dollars—is issued to the college by the War Department. It includes two pieces of artillery with their accompanying limbers, cadet rifles and bayonets, belts, cartridge boxes, and a yearly allowance of ammunition for target practice.

The military course is required to be taken by all physically qualified male students of the college and preparatory department in regular or special classes, or courses in Agriculture, Practical Mechanics, and Stenography, except juniors, seniors, and graduate students. In exceptional cases college students, in their sophomore year, who have pursued the military course satisfactorily for three years may be excused from the regular work of the course by a vote of the faculty; but such students must continue to wear the cadet uniform, and may be required to drill or parade on special or ceremonial occasions until they have attained junior standing.

"There is no study in the academic course which I would not suppress sooner than give up the military drill."
Andrew D. White.

Agricultural College

The department offers the following comprehensive course of instruction:

Practical. Infantry drill regulations, through the school of the battalion in close and extended order. This includes the ceremonies of battalion parade, review and inspection, guard mounting, and escort of colors, marches, outposts, advance and rear guards, etc.

Field service regulations.

Manual of guard duty.

Firing regulations for small arms, with target practice at ranges from one to six hundred yards.

Theoretical. This includes the portions of the above subjects covered by the practical instruction, and may be supplemented by lectures.

Aside from its probable benefit to the country in time of war, this course is of great and immediate value to the individual student. The drills and exercises are mild forms of physical training, giving an erect and graceful carriage and correcting the bad habits of body to which students are prone. But their chief value to the student lies in the mental and moral discipline they afford, for, by their practice, he acquires the habit of self control, respect for authority, and the fitness to exercise it.

The uniform is of standard cadet gray woolen cloth, and consists of cap, modeled on the army pattern, blouse, and trousers cut in the West Point cadet style.

Active members of the cadet corps are required to wear the uniform at all military formations, with white Berlin gloves, and plain white standing collar.

The uniform—cap, blouse and trousers—costs from fifteen to sixteen dollars; Berlin gloves twenty cents a pair. The cadet will require four pairs of gloves for the school year; these are washed with the weekly laundry.

Uniform

Each student classified for the military course will be required to deposit with the Registrar the amount necessary to purchase a complete uniform when he commences this work.

The uniform of the college may be worn by any male student in good standing. When worn it must be in a military manner, shall be complete, not combined with articles of civilian clothing, and in the case of students not active members of the Cadet Corps, it is not to be accompanied by any insignia of rank in the Corps. But this prohibition shall not apply to special social or ceremonial occasions when it may be desired to show former membership and rank.

Officers of the Battalion of Cadets

Field and Staff

Major, Herbert N. Alleman; Captain and Adjutant, Arthur F. Fraker; Sergeant Major, Donald Young; Chief Trumpeter, Archie Poe.

COMPANY A.	COMPANY B.
Captain, Walter Ames.	Captain, Edward Redding.
1st Lieut., F. F. Lucero.	1st Lieut., H. C. Stewart.
2d Lieut., Earl Wilson.	2nd Lieut., Richard Elliott.
1st Sergt., Alexander McVicker.	1st Sergt., S. K. Baker.
Sergt., Carl Allen.	Sergt., D. C. McWilliams.
" George Quesenberry.	" Allie F. Stover.
" Roland Harwell.	" Dixon Deemer.
" Baylus Love.	" Robert Espy.
Corporal, Lancelot Walker.	Corporal, W. E. Campbell.
" John G. Longbottom.	" Robert Roberts.
" Geo. W. Edwards.	" Juan Gonzales.
" Jno. D. Sullivan.	" Wm. H. Beckwith.
" Carlos N. Romero.	" S. P. Gray.
Lance Corpl., Robert Posey.	Lance Corpl., Ben Scott.
" " Wm. F. Read.	" " E. P. Carrera.
" " Edwin Lyons.	" " Emitt Isaacs.
" " Rolla Russell.	" " Oscar Wilson.
Musician, John Power.	Musician, R. L. Stewart.

"The art of war is an art for the general, a science for the officer, a trade for the soldier."—Marshall Gouvion Saint-Cyr.

Department of Music

Miss Bennett **Miss Morrison**

IN response to a growing demand, this institution offers excellent facilities for the study of music. Two departments, one in instrumental and the other in vocal music, have been organized, each under the direction of a competent teacher. An attractive music room has been provided in the new wing of the Women's Hall. The college has five good pianos, and the students in music are allowed the use of them without extra charge. Terms of tuition are very moderate.

Instrumental Music

In the course of instruction in instrumental music the various elements entering into that art receive the most careful attention, the training in technique being especially thorough and in accordance with the most approved and modern methods, while the compositions for study are selected with a view to securing a true and thorough culture. Each student's work is planned with reference to his particular requirements, the aim being the development of a musical touch and a refined and intelligent style of playing. To this end, while the courses outlined below are, in general, followed, the needs of the individual pupil are, in all cases, consulted and, if necessary, the studies varied accordingly.

Courses of Study

First Year. Technic—Hanon, Virtuoso Pianist. Etudes:—Selected from Koehler, Loeschorn, Heller, Czerny, and others. Bach:—Two parts inventions. Pieces:—By Schumann, Clementi, Haydn, Mozart, Beethoven, and modern composers.

Second Year. Technic—Hanon, Virtuoso Pianist (continued), and Czerny; daily exercises. Etudes:—Selected from Heller, Czerny, Clementi, etc. Bach:—Three part inventions. Pieces:—By classic and modern composers.

Third and Fourth Year courses will be offered to such students as may desire to pursue more advanced work.

The College gives credit to students pursuing the work in instrumental music with accompanying practice, of 30 hours per term, such credits being accepted as the equivalent of the same number of hours in any other subject leading to a degree.

* * *

Vocal Music

The work in vocal music is divided into private work and general class and chorus work. The course in private lessons is complete and thorough. Particular attention is given to correct breathing, tone production, and distinct enunciation.

* * *

First Year. Vocalises by Concone, Sieber, Vaccai. Songs by American and English composers.

Second Year. Vocalises by Panofka, Marchesi, Bordogni. German Lieder. More Difficult English and American songs.

Courses of Study

The Choral Class, to which all students of the institution are admitted free of charge, recites daily and has a regular place on the college program. The work is not compulsory upon any one, but students who elect this work must attend all recitations and do the work required as they would do any other class work. Any failure to act in this way will be treated as similar failures are treated in other classes.

It is customary for this class to give a light opera at the end of the school year, and one night of commencement week is set aside for this performance.

* * *

Terms of Tuition

Instrumental Music. Private lessons, one lesson per week for one term	$12.00
Class lessons, one lesson per week, two in class, for one term, each	9.00

Vocal Music. Private lessons, one lesson per week for one term	12.00
Private lessons, two lessons per week for one term	18.00

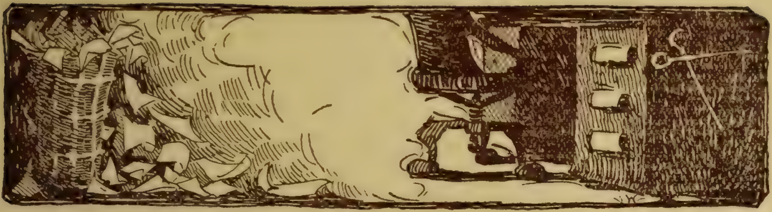
* * *

Special Regulations

Class Lessons. In class lessons no reduction will be made for any pupil who enters late in the term, for temporary absence, or for withdrawal before the close of the term.

Private Lessons. In private lessons no allowance will be made for omitted lessons except in case of protracted illness, and in such case due notice must have been received as early as the day before the lesson day. No reduction will be made for pupils entering late in the term. However, those entering after six weeks of the term have elapsed will not be charged by the term, but at a special rate per lesson for the remainder of the term, to be arranged with the instructor in charge.

Music pupils withdrawing before the end of the term will be charged at the rate of $1.25 per lesson for all lessons taken.



Department of Stenography and Typewriting

Mr. Lain, Principal   Mr. Anderson   Mr. Miller

Requirements for Admission

TO meet the demand for instruction in stenography and typewriting the above department is maintained in the college. To avoid interference with the regular college work, the work of this department is kept distinct, with certain requirements, and a definite course of study. For entrance to the course in English Stenography, students must be at least sixteen years of age. The average age of the enrollment in this department, however, is usually much higher than this. In recent years the average has been 22½ years. Graduates of any commissioned high school in the territory will be admitted without examination. All other applicants must show that they possess the required ability in English to enter the Freshman English class of the regular college course. See page 69.

No guarantee is given to any student pursuing these courses that he will secure a position upon completion thereof. There is, however, little doubt that any student satisfactorily completing a required course will be able to take a position, and no competent graduate of the department has failed to do so.

Equipment

The department is equipped with sixteen typewriters, Remington, Smith Premier, Underwood, and Oliver machines. There are also the necessary appliances for the required work under office practice.

It is important that the students enter this department promptly at the beginning of the course. Under no circumstances will a pupil be admitted after the second week. It is seldom that one who enters late is able to complete the required work satisfactorily. No provision can be made for commencing the work of a course at any other time than as provided. The courses of study in English and Spanish Stenography will be found on page 27.

Stenography. In the first term of this course, the work is elementary in character, being a thorough study of the principles of shorthand; in
1. the second term, it covers word signs and outline drill; and in the
2. third term, it consists of advanced grade work, introducing a good
3. deal of business and other dictation. Textbooks. Day's Complete Graham Shorthand Manual, revised edition; Graham's Dictation Series; Graham's Business Letters, Series 1 and 2, and Amanuensis Practice.

Spelling. Not only are regular lessons given in spelling, but the large amount of correspondence and other writing done by the student and examined by the instructors furnishes the best possible means of fixing the habit of correct spelling. This class meets three times per week during the entire year and students are required to make an average of 90% for the above time.

Typewriting. The outline of this course corresponds to the outline of the stenography course. The first term being elementary, covering
1. correct fingering, touch mechanism, and care of machine. Sec-
2. ond and third terms cover speed exercises, copying, making of
3. legal and commerical forms, typewriting from dictation, and transcription from shorthand notes. The four finger touch method is used, with blank key-board. Work absolutely free from errors is required. Opportunity is afforded students for work on both single and double key-board machines. No one except those enrolled in either the regular Shorthand or course in Commerce will be allowed to take typewriting.

English-Spanish Stenography

THE experience of past years has shown conclusively that a strong and growing demand exists for competent English-Spanish stenographers. The conditions existing in this locality and institution are so favorable for work in English-Spanish stenography that they may be said to be almost unique. The calls upon this college for such stenographers during the past few years have far exceeded the supply.

Although these calls come principally from Mexico, there is an increasing demand in the United States and the newly acquired Spanish-speaking possessions and it is believed that the business opportunities open to competent English-Spanish stenographers are most desirable.

For admission to this course students must show that they are prepared to complete the course within one year. To do this some previous knowledge of both English shorthand and the Spanish langage is desirable and usually necessary.

Stenography. This course is work in English Stenography, and con-
4. sists of rapid dictation and business forms. Stenography 7 and
5. 8 are work in Spanish Stenography, during which the principles
6. of the text-book used are first gone over, followed by work in
Spanish dictation.

Text-book: Lester and Baker's English-Spanish Phonography.

Special Work. Under this head provision is made for special work in English, to thoroughly train Spanish-speaking students; or for those whose knowledge of that language is not sufficient.

Typewriting. This work is principally English and Spanish tran-
4, 5, 6. scription work, with such advanced work as the time allotted will permit.

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Course in Commerce

THE aim of the course is to meet the wants of those who are seeking a high grade business education, and for the training of young men who desire to enter business careers, especially in such fields as domestic and foreign commerce and banking, or branches of the public service. It trains the student to meet the exacting demands of modern commercial life. The commercial department is not intended to qualify students for a business life in the shortest possible time, but rather to train them in such manner that they may not only secure positions of the highest trust, but be able to fill them. It is the persons of limited and imperfect training who are filling the ranks of the lowest class of workers, but those who are well trained and educated are sought and liberally paid for their services. Commercial conditions are changing steadily. What was good enough for the business man ten years ago, will not meet the

> *"Gain in all you can by honest industry. Use all possible diligence in your calling. Lose no time. Gain all you can by common sense, by using in your business all the understanding which God has given you."—Carnegie.*

requirements of the business man today. In no other line of the world's activity, have there been more radical changes within the past few years than in the conduct of business. The most remarkable achievements of the day are not those of science nor of art, but of commerce; and it is fair to presume that succeeding years will see a continuation of this astonishing development of our business interests, therefore, let the young people have the best preparation and training possible, in order that they may succeed in the sharp competition that they are sure to meet.

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Requirements for Admission

For entrance to the course in Commerce, students must be graduates of any commissioned high school in the territory, or any other high school maintaining a course equal to those of the territory, to be admitted without examination. All other applicants must show that they possess the required ability to enter the Senior Preparatory class.

Commercial Geography. The student devotes five hours per week, to a study of "the natural resources and productions of the earth; of the distribution of products; of routes of Commerce and lines of transportation in general and to some extent in detail; and the subjects of Domestic, Colonial, and foreign markets and manufactures." Besides the regular text-book used in class work they have access to the general library, which is supplied with a large number of reference books.

Spelling. The students of the Commercial course take the subject of spelling, three times per week with the class in Stenography, during the entire first year, and are required to make an average of 90 per cent. for the year.

Commercial Law. During the spring term of the first year, the class takes up the subject of Commercial Law. It takes up the law of contracts, commercial paper, agency, partnership, corporations, sales, public service companies, and insurance. A study of the business laws and customs of foreign countries with which we have interests in common is included in this course.

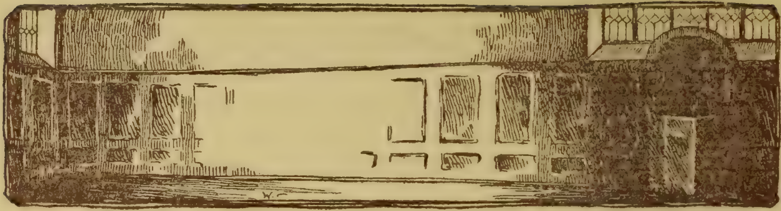
Commercial Arithmetic. Mathematical accuracy and rapidity are necessary in the present business life. Special emphasis is laid upon practical measurements and upon interest, discount, and settlement of accounts. Daily classes are conducted in this work during the first term of the second year. To enter this class applicants must be prepared to enter Mathematics.

Civics. This study is intended to give the pupil an elementary knowledge of those facts that are necessary to the right discharge of the duties of citizenship.

Commercial Letter Writing. During the first term of the second year, a class is conducted by the department in English, in which special attention is given to the writing of all kinds of business letters, letters soliciting business, letters containing statements of accounts, letters of recommendation, etc., all of which are individually inspected by the instructor, who gives valuable suggestions in wording and style. Too much stress cannot be laid upon the value of being able to compose an intelligent business letter.

History of Finance. The object of this subject is to inform the student of the general principles of public revenue and the origin of wealth, and to acquaint him with the methods employed in the business world.

Bookkeeping. During the first year the student is instructed in the elements of theoretical bookeeping, both double and single entry. This class meets twice each week for the entire year. During the second year they take up the advanced work in various lines of business, including mercantile, both wholesale and retail; and manufacturing and banking. In the first year the student is made familiar with the first principles of the science of bookkeeping. He is guided carefully until he can master the simpler forms of the daybook, cash-book, and ledger. Frequent drills in journalizing and closing ledgers are given for class drill. The student, in the advanced work, will be required to master all forms and sets of books in the various lines of business; such as partnership, stock companies, corporations, etc.



The Preparatory Department

Mr. McClenahan, Principal Miss Thomas Miss Shimer

THIS department has been planned primarily for young men and women who desire to prepare themselves for some of the regular courses of the college proper. Owing to the extent of the territory and its scattered population, it has been almost impossible to secure good school privileges for every settlement, or even for some of the larger towns. This department, through its special and regular classes, enables pupils to supplement these deficiencies. It secures complete and thorough instruction in the branches commonly taught in grammar and high schools.

For admission to the lowest regular (B) class of the preparatory department, candidates must give satisfactory evidence of having completd the work of the sixth grade as outlined in the course of study for the public schools of New Mexico and authorized by the Territorial Board of Education. This work is as follows:

Arithmetic. An equivalent of the work covered by White's Complete Arithmetic to Denominate Numbers (p. 112), including Common and Decimal Fractions and United States Money.

Language. Reed and Kellogg's Graded Lessons in English completed, or an equivalent.

Geography. Through the study of Asia in the Natural Advanced Georgraphy (p. 143), or an equivalent.

Reading. An equivalent of the work covered by McGuffey's Fifth Reader.

"Select that for which you are apt, begin at the beginning, proceed in order, step by step,"—R. W. Emerson.

Spelling. Through Part II, of Reed's Word Lessons.

Special Classes. For pupils who are at least sixteen years of age and who are sufficiently prepared to recite in some studies with a regular class, but are deficient in other studies, special classes will be formed, suited to their needs. These are designed for those whose school privileges have been especially deficient and for those Spanish-speaking students who would be admitted to a regular class if their knowledge of English were greater.

Further information regarding requirements for admission may be obtained by addressing the principal.

For entrance to the higher classes candidates must give satisfactory evidence of having completed the work of grades below the class they seek to enter.

Strict adherence to these requirements will be enforced.

Instruction in free-hand drawing is provided for all pupils. The course presents the study of form and drawing which includes the subjects of construction, representation, and decoration. The work advocates a practical development of the factors of the organism itself,—the hand, the eye, and the brain,—and thus leads pupils to look upon drawing as an important means of awakening and conveying thought in the other subjects of the school work.

Daily instruction is given in vocal music by a special teacher. All pupils are required to attend these classes.

The aim of the department is to develop courteous manners and studious habits in the pupils. While strict discipline will be maintained, the students, as far as possible, are placed on their honor and self-government is encouraged. This, we believe, will tend to develop those qualities necessary to good citizenship.

Junior Preparatory Class

FIRST HALF YEAR	SECOND HALF YEAR
Algebra	Algebra
Grammar and Composition	Grammar and Composition
Arithmetic	Arithmetic
Physiology	Civics
Free-hand Drawing	Free-hand Drawing
Physics	Physical Geography

"I know no disease of the soul but ignorance."
—B. Jonson.

Elementary Division

A CLASS	B CLASS
Arithmetic	Arithmetic
Grammar and Composition	Grammar and Composition
United States History	Geography
Reading	Reading
Spelling	Spelling
Writing	Writing
Free-hand Drawing	Free-hand Drawing

For the Junior Class the following books will form the basis for composition work: Goldsmith's Vicar of Wakefield; Tennyson's Princess, Lancelot and Elaine, The Passing of Arthur, and Gareth and Lynette; Lowell's The Vision of Sir Launfal; Scott's Ivanhoe, and The Lady of the Lake; Coleridge's The Ancient Mariner; George Eliot's Silas Marner; Irving's Life of Goldsmith; and The Sir Roger de Coverley Papers.

The lower classes will be furnished with a list of library books from which each member will be expected to select and read at least two books during each term of the year.

MATERIAL EQUIPMENT

The Main Building

THE main building is a brick structure of two stories with stone basement surrounded by a cement area. It is trimmed with a gray stone and has a heavy rough stone foundation. It is well built and cost $25,000. It contains thirteen rooms, all of which are furnished and in constant use. The building is supplied with water and is lighted by electricity. On the first floor are the library and the president's and the registrar's offices, as well as a number of recitation rooms. On the second floor, besides several class rooms, is McFie hall, which is used for class exercises, lectures, and similar purposes, and will seat a large audience.

* * *

Science Hall

This is a large two story brick building, situated north of the main building. It contains eleven large rooms, and five smaller ones, besides hallways. The lower floor is occupied by the departments of Chemistry and Domestic Science, while the upper floor furnishes quarters for the departments of Physics, and Biology. All the class work of these departments is done in this building, and the Experiment Station work in chemistry, botany, and soil physics is carried on here.

* * *

Engineering Buildings

These buildings, two in number, are located south of the Main building. They comprise, besides two large recitation rooms and hall, commodious rooms for wood work, machine work, foundry, and blacksmithing; an electric light plant; and a 40 horse-power steam plant. These buildings are well equipped for engineering work.

* * *

Women's Hall

This is a brick building, situated on the College Farm. It contains a large dining hall, a large parlor, a smaller reception room, a music room, the matron's room, a kitchen, etc., besides bath rooms and twenty-five well lighted and ventilated sleeping rooms, all nicely furnished. About fifty people can be accommodated in the building.

Other Buildings

BACK of the main buildings are the feed rooms and horse sheds. These are for the horses of the students and professors. An adobe farm building erected at a cost of about $2,000 is located near the center of the farm. The greenhouse and the sheds for the storing of farm implements and machinery are located near the farm building. An adobe corral has recently been added to the equipment.

* * *

New Buildings

At the last legislative assembly appropriation was made whereby this institution will receive some funds for the erection of new buildings. Plans, taking into consideration the legitimate growth of the college for a number of years, have already been adopted by the regents and steps are now being taken to erect three new buildings which we hope will be ready for occupancy some time during the coming year. One of these buildings will be for the department of Agriculture and Horticulture while another will accommodate the Preparatory department and the department of Household Economics. The third is to be built by the Y. M. C. A. of the college and will be in the nature of a home for young men. These added accommodations will materially improve the work of all departments, giving, as it does an opportunity for each to increase its efficiency by more apparatus and class-room facilities.

* * *

The Library

The libraries of the college consist of the general, departmental, and text-book libraries.

The general library is located in the Main Hall. It is especially well equipped in reference books, and contains a good collection of general literature, with the standard works in the various other classes. The collection is increased with reference to the needs of the various departments, keeping in view the development of a strong reference collection. The library subscribes to the leading periodicals, and many magazines and papers are received as gifts. Personal assistance in all lines of reference work is given by the libarian and student assistant.

"This then seems the most vital obligation laid upon the college librarian, the bringing of the college student into such relations with the world of books that he may be a better, more useful citizen of his community and may have that within himself which will make him self-dependent—and a creative force in the state and nation."

—Mary W. Nicholl.

Agricultural College

The departmental libraries are located in the offices of the several departments. They are open during the working hours of the department, and books may be drawn by consulting the professor in charge. Each department has an author catalog to its own books, and each of its volumes is regularly entered in the dictionary catalog of the general library. The departments subscribe to 65 magazines, and receive many others as gifts.

The free text-book collection is kept in the general library. Text-books are furnished to all students after they have made a deposit of $2.50 with the registrar. The books are drawn out upon written order from the several instructors. Students are charged for unreasonable damage to all books used by them during the year.

Statistics for 1905-1906, and 1906-1907:

	1906		1907		Totals		
	Gen.	Ref.	Gen.	Ref.	1906	1907	Gain
General library	3420	1372	3492	1386	4792	4878	86
Agriculture	118	83	131	84	201	215	14
Biology	511	117	536	118	628	654	26
Chemistry	208	194	238	195	402	433	31
Engineering	356	125	365	128	481	493	12
English	26	34	37	34	60	71	11
Horticulture	75	5	92	11	80	103	23
Household economics	40	2	45	4	42	49	7
Mathematics	166	20	174	21	186	195	9
Military	109	..	..	..	109	109	..
Preparatory	156	20	176	20	176	196	20
Soils	86	..	91	..	86	91	5
Spanish	128	79	139	79	207	218	11
Text-books	5501	..	5651	..	5501	5651	150
Totals					12951	13356	405

Station bulletins	6436
Documents U. S. department of Agriculture	2784
Miscellaneous documents	2380
Totals	11640

> *"Well and happily has the man conducted his understanding who has learned to derive from books a regular rational delight."*
>
> *—Sidney Smith.*

Two hundred and twenty-eight periodicals are received by the General and Departmental Libraries as follows:

	Subscriptions.	Gifts.
General Library	57	33
Departmental Libraries—		
Agriculture	3	57
Biology	9	2
Chemistry	6	..
Engineering	12	6
English	1	..
Executive	3	..
Horticulture	3	5
Household Economics	8	2
Mathematics	3	1
Military	2	..
Preparatory	10	..
Soils	3	..
Spanish	1	..
Stenography	5	..
	122	106

The following newspapers are received and placed on file in the Library:

Albuquerque Evening Citizen.
Albuquerque Morning Journal.
Calrsbad Argus.
Chicago Drover's Journal.
Chicago Tribune.
Cloudcroft Silver Lining.
Colfax County Stockman.
Deming Graphic.
El Laborador.
El Nuevo Mexicano.
El Republicano.
El Tiempo.
Farmington Times Hustler.
La Luz.
La Voz Publica.
Las Cruces Citizen.
Las Vegas Optic.
New Mexican Review.
New York Times.
New York Times-Review.
New York Tribune Farmer.
Otero County Advertiser.
Portales Times.
Red River Prospector.
Rio Grande Republican.
Roswell Register Tribune.
San Juan County Index.
Santa Fe New Mexican.

Agricultural College

THE College of Agriculture and Mechanic Arts offers a great deal to the young people of New Mexico. Its courses of study and equipment are now equal to those of similar colleges in most of the older states and students can get a very thorough training here in any of the leading lines of practical education. New schools generally make greater efforts than the older ones and the energy put forth and the instruction given are often superior.

General Information

In the smaller colleges like this, the student comes into closer personal contact with the professor and receives more personal attention and direction in his work than is possible in larger institutions. Parents are requested to make a careful investigation of this college and learn fully of the excellent opportunities it offers before deciding to send their children elsewhere.

Agricultural College, N. M., is the postoffice and Mesilla Park the general freight and express office of the college.

There is now a good elementary public school at Las Cruces, the course of study of which connects with that of the preparatory department of the college; so that parents who desire to live in the neighborhood of the college for the sake of giving their older children its educational advantages will also have at hand a good school for their younger children.

Strangers will now find satisfactory temporary accommodations at Mesilla Park near the depot. They should then report to the president who will assist them in finding boarding accommodations.

Students should be present the first day of the term. The necessity of this is too seldom realized. New students and those desiring re-examination should report on the day named for this work.

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The board of regents determined in 1900 to establish one or more fellowships, of the annual value of $300, open to graduates of

> *"The entire object of true education is to make people not merely do the right things, but enjoy them—not merely industrious, but to love industry."—Ruskin.*

Fellowships

the college, and in default of competent graduates who have specialized in the particular line of work required of the fellow, to graduates of other colleges. These fellowships will be tenable for one or two years, but not for a longer period, and will be awarded to promising graduates who desire to pursue their studies in one or more lines beyond the undergraduate curriculum, and who are willing and able to devote half of their time to assisting in the work of one of the departments of the college. The appointment will be made upon the joint recommendation of the head of the department in which the fellow is to serve and of the president of the college. A fellow will not be permitted to carry more than two full courses of study, without the express permission of the head of his department and the president of the college.

Entrance Fee. Each year all students who are citizens of New Mexico are charged a fee of five dollars ($5.00); students from other states or territories in the United States are charged a fee of five dollars ($5.00) per term. Students who are not citizens of the United States are charged a tuition fee of seventeen dollars ($17.00) per term or fifty dollars ($50.00) per year.

Book Deposit. All students are required, each year, to deposit two and one-half dollars ($2.50) with the registrar as a guarantee that the proper treatment will be given to college text-books and other property lent to them. At the close of the year or whenever the student withdraws from the college, his deposit, less charges for damages to or loss of college property, is returned to him. Students who are notoriously careless with their text-books may be required to increase their deposits.

Chemistry Deposits. Students in all chemistry, mineralogy, and assaying courses (except Chemistry A) must have on deposit with the registrar at the beginning of each term, the sum of five dollars ($5.00) to cover breakage of apparatus used in this work. Students in furnace assaying must, in like manner, have on deposit ten dollars ($10.00) to cover cost of crucibles, scorifiers, and other apparatus used up or broken. At the end of the year or upon withdrawal, these deposits less breakage, etc. will be returned.

Chemistry Fee. At the beginning of each term each student taking furnace assaying will be charged a fee of five dollars ($5.00), to cover cost of gasolene and fluxes used.

Mechanical Engineering Deposits. Students taking any practice work in the Engineering Department, will be required to deposit with the Registrar, at the beginning of each year, five dollars ($5.00) to cover breakage or damage, and must make additional deposits at any time, to meet similar expenses in excess of this amount. These deposits, less charges for breakage or damage, will be returned at the end of the year or upon withdrawal.

Military Fee. Each student who is classified for the military course will be required to deposit with the Registrar the amount necessary to purchase a complete uniform, when he commences this work. The regular fatigue uniform will cost about $16.50 complete. This includes suit, cap, and gloves, as adopted for use of the cadets.

Music. Instruction in music is charged for by the lesson.

Horse-stall Rent. Twenty-five cents (25c) per term is charged each student or teacher using a horse-stall. This fee is used to keep the sheds clean.

* * *

Text-books

Text-books are furnished by the college. They will either be sold to the student at cost, or lent. Students who are able should purchase their books. Many of them will be needed after leaving school, and they can be made to form the nucleus of a private library, which every student should be encouraged to collect.

* * *

Stationery

As the college is nearly two miles distant from any store dealing in stationery, it has been found necessary, for the accommodation of students, to carry at the college a small line of articles, such as pencils, pens, etc., which are sold to students, for cash only, at a small profit.

* * *

Boarding

Although the college, as such, does not furnish board and rooms for men, the accommodations for all classes of students are becoming quite varied and ample. The college has attracted to its immediate vicinity private families, many of whom accommodate some

"The correct perception is a preparation for correct knowing and thinking."—Froebel.

Agricultural College

students with board. The price for board, room, light, etc., in families, varies from $16 to $25 per month; table board in families about $15 per month. Not far from the college campus are cottages for rent. These are usually occupied by families who have moved in and taken temporary residence for the purpose of educating their children This is a very satisfactory solution of the boarding problem.

A boarding club for young men—a private enterprise—has been established under the general supervision of the faculty. The buildings are sufficient to room and board about forty students. Table board is furnished to some who do not room in this building. Rooms are furnished with study-tables, but students are expected to furnish their own bedsteads or cots, bedding, towels, etc. Rooms, however, will be fully furnished for those who desire it. The food is abundant and healthful. The cost for board and room will not exceed $15.00 per month when students furnish their own bedsteads and bedding.

* * *

The Women's Hall

The Women's Hall, situated on the college farm, will accommodate about fifty students. The price of board per calendar month, with room, light, heat, is $17.00 when two young women occupy a room, payable in advance on the first of each month. Young women who desire to occupy a room alone will be charged $20.00 per month. The rooms are comfortably furnished, but each student must provide comforts, blankets, sheets, pillow-slips, towels, napkins, napkin ring, and two laundry bags. The student's name must be plainly marked on all pieces. A spoon and glass should be brought for use in the room.

The students are under the general supervision of the faculty, and in charge of the dean of women who will supply further particulars.

Estimate of Necessary Expenses

Various college incidentals	$ 10.00	..	$ 10.00
Nine month's board and lodging at $15 to $20	135.00	to	180.00
Laundry, per month at $1.00	9.00	..	9.00
	$154.00	to	$199.00
Male students who are required to take military tactics, for uniform			$ 16.50

Paid Labor

There is a considerable amount of labor on the farm, in the shops, and in the laboratories, that can be performed by students, and the policy is to give it to students rather than to others. Some students have been able to earn enough during the year to pay their expenses; but those doing so have had constant employment in some subordinate position. The college can not undertake to furnish work for all students who wish it, or need it, in anything like sufficient amount to pay expenses; and even if it could the student's time is needed chiefly for study, recitation, and practice. Still many worthy and industrious students pay a considerable part of their expenses by labor. Preference is given to those who are most trustworthy and meritorious, and who are regular and punctual in attendance, and correct in deportment. This labor is paid for at the rate of from 7½ to 20 cents per hour; but the faculty reserves the right to limit the amount of work any student may do.

* * *

Religion

All students will be trained in the principles of morality, but no sectarian teaching will be tolerated in the college. Entire freedom of choice is given the student in selecting the church he will attend. Services are held at the following churches every Sunday: Roman Catholic, Presbyterian, Methodist, Baptist, and Episcopalian. At the Presbyterian church are held meetings of the Young People's Society of Christian Endeavor. With the Methodist church is connected the Epworth League. Recently a branch of the International College Y. M. C. A. has been established at the college and regular meetings are held on Sunday.

* * *

Discipline and Government

It should be impressed upon the youth of New Mexico that by the creation of the College of Agriculture and Mechanic Arts there has been provided for them the fullest and best opportunities to secure a practical education. Students who enjoy the advantages here offered should realize that to forfeit these privileges on account of their misuse or abuse is a matter of the most serious concern to them. No elaborate code for the conduct of students is prescribed. The college rules are mainly for the purpose of facilitating the college business. As regards behavior, students are expected to conduct

"Tis education forms the common mind;
Just as the twig is bent the tree's inclined."—Pope.

themselves as ladies and gentlemen. If, after a fair trial, the influence of any student is found to be detrimental to scholarship, morals, or good order, dismissal will follow.

For some time past the students have been encouraged to take an active part in the administration of the college. The student body is organized, and there is a Student Conference Committee consisting of representatives from the student congress and from the faculty. This committee discusses informally all matters of student concern, whether proposed for discussion by the faculty or by the students, and recommends to the faculty and to the student congress such lines of action as seem to it to be wise.

* * *

College Rules

As already stated, it is the policy of the faculty of this institution to deal with students in the most liberal manner possible. It is assumed that the college students in an institution of this character are of sufficient age and advancement to know how to conduct themselves properly as ladies and gentlemen. In view of this policy this institution has no written rules relating to the conduct of students. Any violation of the usually accepted code of proper conduct is dealt with as the particular case may demand.

In order that students may know how to attend to the business requirements of the institution in regard to their studies, the library, college organizations, etc., quite a full list of rules of procedure are given below. These rules, while designed primarily for college students, apply, in many instances, to students of the preparatory department as well. In all special cases the preparatory department has its own rules.

* * *

Matriculation, Etc.

1. A student when first entering college, or at the beginning of the first term of any subsequent year, must present himself:

To the President

who fills out the student's "admission card," and sends student with a "term assignment card"

To the Course of Study Committee

which assigns studies, completes the "term card," and issues class cards to the student, who goes

To the Registrar,

gives him the class cards, pays fees called for by his courses, takes receipt, and then reports

To the Instructors,

and shows each his receipt. If the receipt is satisfactory, the instructor gives the student an order for text-books, etc., and then assigns the lesson. The student then goes

To the Librarian,

and, showing his receipt and the book order, filled and signed by the several instructors, gets books, and surrenders order to the Librarian.

2. At the beginning of the second and third terms, a college student who has previously entered will procure a term assignment card from the Registrar, who will fill out the personal part of the card before giving it to the student, and the student will then go to the *Course of Study Committee* and the procedure from this point will be the same as at the beginning of the year, except that the student need not go to the Registrar again unless he is assigned to a course which requires the payment of a special fee or deposit.

3. *Students* must preserve the receipts they receive at the beginning of the year, and show them to their instructors at the beginning of each term as a condition of admission to class. If the receipt is lost, a duplicate may be obtained from the Registrar upon payment of a fee of 10 cents.

4. *An Instructor* must not admit a student to his class, even though he have a class card, unless he shows the Registrar's receipts for all fees and deposits required of members of the college taking the course in question.

Grading, Examination and Classification of Students

1. The system of grading is on a scale of 100.
2. At the end of each term, unless special action be taken by the fac-

> *"What we want is not learning but knowledge; that is the power to make a learning answer its true end as a quickener of intelligence and a widener of our intellectual sympathies."*
>
> *—Lowell.*

ulty to the contrary, examinations are held in all subjects, or parts of subjects, taught during that term.

3. The lowest passing grade is 70. Students making a grade of 85 in their daily class work, may, at the discretion of the instructor, be excused from examination.

4. The method of determining the average daily grade, except in the matter of absences, is left to the instructor in charge.

5. In determining the average daily grade, an amount is deducted for unexcused absences, proportional to the amount of work missed. Excused absences count the same as those unexcused, unless the work matter of absences, is left to the instructor in charge.

6. In making up the term grade in any subject, in case an examination has been held, the average daily grade is added to the examination grade and the sum divided by two. In case no examination is held at the end of a term, the average daily grade is taken as the final mark for term.

7. Students who receive a term grade of 70 or more in any subject, shall be passed; those below 55 shall be dropped from the class.

8. A student conditioned in any subject has a chance to remove his condition by taking a re-examination in the subject. If he fail in the re-examination, or fail to take the same at the specified time, credit for the work will be given only after he has repeated the subject in class and made a passing grade on the same.

9. All re-examinations for failures in entrance examinations shall take place at or near the close of the first term. Re-examinations for failures in studies shall take place at or near the close of the next term, except that students failing in the last term of the year must be re-examined at the beginning of the next year.

10. All re-examinations for failures during the first two terms of the senior year must occur before the beginning of the third term of that year.

11. A student conditioned in any subject may be allowed to proceed with his class, with the chance of removing the condition at the end of the next term; but if he then fail to pass a satisfactory examination, he shall be dropped from the class.

12. If a student, at the end of any term, fail in every subject or in every subject save one, he may be at once dropped to a lower class, or from college, as the factulty may decide.

13. Whenever a student, by action of the faculty, is put into a lower class, he may be required to repeat all the studies of that class, whether he has previously passed in them or not.

14. No student taking a regular course is allowed to take up any subject in that course until he has passed in all preceding work necessary to fit him for that subject. Neither will such a student be excused from any prescribed work in that course except by special action of the faculty.

15. No special student is allowed to enter any class unless in the opinion of the instructor in charge, he is thoroughly prepared in all necessary preceding branches.

16. In case of any conflict in the course of study, unless otherwise ordered by the faculty, the higher subject shall give way to the lower.

17. Regular college students are classified as Freshmen, Sophomores, Juniors, or Seniors, according to the number of hours work they have completed. Thus if the number of hours required per week is 20, the number of weeks per year 36, and the number of years 4, then the minimum number of hours required for graduation would be 20x36x4,—2880. In this case, a student would be classified as a Freshman until he has completed 720 hours, and thereafter as a Sophomore until he has completed 1,440 hours, etc.

In the above scheme, two hours of drawing, laboratory work, shop practice, or field work, are counted as equivalent to one hour of recitation.

18. No grade from another school will be accepted for advanced standing in college courses in this institution, except by special action of the faculty. A student who desires credit for work done at schools ranking lower than this institution, must pass a satisfactory examination or present other evidence that the work has been thoroughly done.

19. A record is kept of the work of each student, and at the end of

each term, reports showing grades, etc. of the different students, are sent to their parents or guardians.

20. When a student shall have been assigned to any class or branch of study and shall have entered on the same, he can withdraw honorably from such class only by presenting to the instructor the written consent of the President of the college.

* * *

Graduation

1. Seniors having conditions at the beginning of the third term of the senior year will not be considered candidates for a degree.

2. A student, in order to graduate, must have completed the full amount of work included in one of the college courses of study, or an equivalent of the same which has been accepted by the faculty.

3. Under rules adopted by the Associated Agricultural Colleges and agreed to by the War Department, students who have been classified for the Military Department shall not be graduated unless they have pursued the Military Course satisfactorily for two years.

4. Each candidate for graduation is required to prepare a thesis, which shall be passed upon by a committee consisting of the head of the department in which the work was done, the professor of English, and the President.

5. Any graduate may be required by the faculty to give an exercise on commencement day, consisting of an oration or an extract from or an abstract of the thesis.

6. Subjects for theses must be presented to the faculty for approval not later than the end of the second term of the senior year.

7. All theses must be handed in for inspection by the committee referred to under section 4, before the beginning of the senior vacation, and the finished thesis must be filed with the Registrar not later than the beginning of the second week of the senior vacation.

8. A thesis in order to be finally accepted, must be clearly written or

"The best part of our knowledge is that which teaches us where knowledge leaves off and ignorance begins."—Holmes. 120

type-written, on good linen paper 8x10½ inches, bound, and a copy delivered to the President for permanent preservation.

9. Seniors are given a vacation during commencement week and the week immediately preceding.

Absence and Tardiness

1. A male student who is absent or tardy must state the reason for such absence or tardiness to the different instructors concerned, the first time he meets said instructors in class thereafter. If no such statement is rendered the student will be marked zero for the work he missed.

2. A female student must, in the same manner, present to the different instructors concerned, not later than the second time she meets said instructors in class thereafter, a written statement from the dean of women as to whether an absence or tardiness has been satisfactorily explained.

3. Any student who is absent from a regular examination at which he or she should be present, shall be required to present to the instructor in charge a satisfactory excuse for the same, in default of which said student shall be given a grade of zero and dropped from the class.

The Library

1. Subject to the following rules, books and periodicals may be drawn from the library by making the necessary application to the librarian.

2. Temporary assignment of library books may be made to the different departments of the institution by the librarian, subject to the approval of the President. Books so assigned may be recalled at any time. Indefinite assignment of the library books and periodicals may be made to the different departments by the library committee, subject to the approval of the faculty. Books and periodicals so assigned can be recalled only by faculty action.

3. No library book, unless in a department library, may be kept out for more than two weeks consecutively. For each day over time a fine of three cents is imposed.

4. Encyclopedias and similar works of reference must not be taken out of the library, except by special permission of the librarian.

"I would rather be a poor man in a garret with plenty of good books, than a king who did not love reading."—Macauley.

5. Current numbers of periodicals may not be kept out of the library longer than over night, except during the period from Friday evening to Monday morning. The last seven issues of the dailies, the last four issues of the weeklies, and the last two issues of the monthlies are considered current numbers.

6. Current numbers of periodicals may not be drawn sooner than one hour before the library is closed and must be returned by 9:00 a. m. of the day on which rule 5 calls for their return.

7. Periodicals other than current numbers, will be governed by the same rules as library books.

8. No book or periodical assigned to any department may be drawn without the express consent of the head of that department.

* * *

College Organizations and Athletics

1. The public exercises of all societies, classes, athletic teams, or other organizations connected with the college, are subject in time, place, and character, to the approval of the President. All rooms assigned for the use of societies or other organizations shall be occupied subject to the faculty's control.

2. All societies, classes, athletic teams, or other organizations connected with the college are required to notify the faculty in writing of all dates desired for public exercises. When possible, such notices shall be given at least two weeks before such exercises are to be given.

3. The faculty reserves the right of passing upon the constitution and by-laws, and all subsequent amendments to the same, of all societies organized in connection with the college.

4. The first Friday in May is a holiday set apart for athletic sports, and is known as Field Day.

* * *

Miscellaneous

1. It is the duty of any professor or officer of the college to note and rebuke violations of good order.

2. Carriages must be so arranged about the horse stalls that an open

passage is left between the carriages and stalls, and horses must not be tied in places where they block the passage to the stalls.

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3. The faculty may, at any time, deprive a student, whose college work is unsatisfactory, of the privilege of taking part in any team or public athletic work.

4. Smoking, or the carrying of lighted pipes, cigars, or cigarettes, is not permitted in or about any of the buildings of the college and experiment station.

* * *

Donations and Concessions

During the past history of the college, a number of things have been given to the institution and exceptional concessions have been made upon the prices of material which it was necessary to buy. A complete list of such articles as have been received to date, has been published in previous catalogs. Appended will be found a list of all gifts received during the scholastic year of 1906-1907, for which the management of this institution wishes hereby to express the most sincere gratitude.

The various departments of the institution will gladly receive any gifts of material, specimens, books, separates, and apparatus, which may be added to our museum, library, or teaching equipment, and will most willingly pay transportation, if notified of the charges. Particularly is this true of mineralogical, geological, archæological, zoological, or botanical material from any part of the Territory. Single specimens are of small value when thrown about the house, but a museum is made up of just such single specimens collected in one place and properly arranged. We need a good museum and already have some considerable collections to which we are adding all the time. We also have case room for such material, and men to take care of it properly. All communications on this subject should be addressed to the President and all material sent us should bear the name and address of the sender.

DONATIONS FOR 1906-1907

To the Agricultural Department

Clod Crusher....................Brillion Iron Works, Brillion, Wis.

Clod Crusher....................John Deere Plow Co., Moline, Ills.

Disc Harrow................Rock Island Plow Co., Rock Island, Ills.

Spring Tooth Harrow.........Peter Henderson, New York City, N. Y.

1 doz. Barn Door Fasteners......Albany Hardware Specialty Co., Albany, Wis.

Austin Reversible Road Machine......Austin-Western Co., Ltd., Chicago, Ills.

Land Roller...................Roderick-Lean Co., Mansfield, Ohio.

420-Ear Seed Corn Tester...Ulbrick Seed Corn Tester Co., Atlantic, Ia.

Hawkeye Grain Grader.......Parsons Hawkeye Mfg. Co., Newton, Ia.

Hawkeye Automatic Hog Waterer......Parsons Hawkeye Mfg. Co., Newton, Ia.

Corn King Manure Spreader......International Harvester Co., Chicago, Ills.

Sidehill Plow....................Syracuse Plow Co., Syracuse, N. Y.

Eureka Weeder and Seeder...........Eureka Mower Co., Utica, N. Y.

Minnie Mower.............Minnie Harvester Co., Minneapolis, Minn.

To the Department of Biology

297 Botanical Specimens for the Herbarium....Mrs. W. H. Bartlett, Santa Fe, N. M.

500 Botanical Specimens from the Pyrenees Mts....Mr. E. O. Wooton.

STUDENT ORGANIZATIONS

The Student Congress

THIS is an organization which is especially designed to bring the students together to discuss matters of general interest to the student body as a whole, and to promote college spirit. The opinions and desires of this congress on matters relating to the welfare of the students, when presented to the faculty, usually receive consideration; although the faculty uses its best judgment as to when it shall consult the congress. There is a certain power delegated to the congress, but it is only advisory, and in order to receive any consideration, recommendations must be presented to the faculty through the Student Conference Committee. This committee is always ready to meet the executive committee of the congress, to consider the wishes of the students, and to report all such requests, with recommendations, to the faculty for action.

All students of the institution are members of the congress, and the members of its executive committee are selected once a year. It has recently accepted the management of the new college paper.

* * *

The Columbian Literary Society

The society was organized October 25, 1891, under the name of Alhpa Chi. In 1892 this was changed to Columbian, since which time the society has made steady and prosperous growth. Until about the middle of 1894-5 only men were admitted as members, but since that time women have had equal membership privileges. The object of the society is to promote and encourage conscientious and practical literary and musical work by readings, essays, papers, debates, vocal and instrumental music, and such other exercises as the committee on program may prescribe. Each year the society gives a public entertainment, generally of a dramatic character, and the drill and training is of great value to those who take part. The self-possession, knowledge of parliamentary law, and skill in debate, which faithful members of this society gain, are of inestimable value in after life.

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To be eligible to membership a student must be pursuing work in (1) any of the regular four year college courses, (2) any of the two year short courses, (3) either of the stenography courses, or (4) the senior preparatory class. A fee of two dollars is charged each new member, which fee admits him to the society and gives him one year's subscription to the college paper. Dues of fifty cents are paid each succeeding term.

Regular meetings are held on Friday afternoon of each week, and an evening meeting is held once each term. Visitors are allowed during the literary part of the meetings. Officers are elected at the beginning of each term.

* * *

The Minerva Literary Society

Although a comparatively new organization, having been in existence only since November, 1904, the Minerva Literary Society is now the largest in the college. This society gives literary programs once each week and from these the members derive great benefit. Not only are they helped by the debates, readings, musical selections, and recitations, but by participation in the work of the society they get that quality of self-reliance which is the corner stone of all success. All students carrying collegiate work are eligible to membership.

* * *

The Stenographer's Association of New Mexico

This society is composed of members of the stenography department of the college, and also all former students of this department. No one else is eligible to membership.

The society was organized two years ago and has been very flourishing from its organization. Matters of interest to stenographers are considered by this Association.

The colors of the society are crimson and white, and a neat pin has been adopted, consisting of a crimson letter "S" on a white background. This past year a "College Weekly" was begun and successfully published by this association.

The Lincoln Literary Society

In the fall of 1902, the students of the Preparatory Department organized a literary society, which has been continued with much enthusiasm and success. The society is composed of the most enterprising students. They elect their own officers, make their programs, and have charge of their meetings, the principal and teachers simply acting as advisory members.

Every Thursday afternoon, the last hour is given to the discussion of some stated question, each member being allowed an opportunity to take part in the debate. The larger part of every Friday afternoon is devoted to a regularly prepared program, consisting of recitations, compositions, debates, and music.

* * *

The Collegian

The New Mexico Collegian is the name given to the paper published hitherto by the Columbian Literary Society. It is a monthly publication devoted to the chronicling of college events and happenings—local, social, and of a literary character—and contains from 30 to 40 pages. At the end of each year a souvenir Commencement number has been issued, replete with pictures, local matter, and special articles of interest to the students and their friends. The subscription list includes practically all the students of the college, the alumni, and a large number of outside friends. Essays and literary compositions of special value written by any student in connection with his college work are published in the Collegian, and this fact tends to make the students strive to do good work.

By agreement of the Stenographers' Association and Columbian Literary Society, it was decided to transfer the "Collegian" and the "College Weekly" to the Student Congress to publish. An editor-in-chief for the coming year was elected, but the name and policy of the new paper have not yet been made public. No doubt renewed vigor may be expected in the periodical.

* * *

Fifteen years ago (1893) the students organized an Athletic Association for the development of athletics and such sports as would tend to keep the student physically sound and in good health while pursuing

Agricultural College

his college work. The Association has grown steadily and has expanded until it is the best organized and equipped, both with athletic goods and grounds, and with funds to carry on its work, of any like organization in the Territory.

The Athletic Association

The spirit with which the students carry on this work is most commendable and is one of the greatest factors in the student life in bringing them and the members of the faculty more in touch with each other. The efficiency of the Association is shown by its work. It has taken the lead in all matters pertaining to athletics in the territory. Besides engaging successfully with outside teams in football in the fall, basketball in the winter, and baseball in the spring, it has taken the lead in track and field work. All but two of the territorial records are held by the college. Four intercollegiate track meets have been held and in all of these meets the college has carried off the honors easily. The college track team now permanently holds the two silver loving-cups presented to the Intercollegiate Association by Hall and Learnard, of Albuquerque and Manasse Bros. of Las Cruces.

The policy of the faculty of the institution is to allow the students to do as much work as possible, thus permitting the development and the fostering of that feeling of pleasure from well executed plans and the cultivation of that sense of responsibility, resourcefulness, and assurance so much needed in the rounding out of a student.

The college athletic field is the best in the territory. It is excellently situated and equipped with good fields for football and baseball, with tennis courts, a quarter mile running track, and a straightaway course for the 100-yard and 220-yard dashes.

The first football team won match games this year against the University team, against the School of Mines team, and against the El Paso Athletics; the scores being large in favor of the college. Neither the first nor second teams were scored against during the season.

The girls' basketball team holds the territorial championship. The boys' basketball team lost a hotly contested game with the University team.

The cost of membership in the association is an admission fee of one dollar ($1.00), paid but once, and a monthly assessment of 25c.

Special rates are made to women who become members. A member of the association has access to the football and baseball suits, tennis courts and balls, the usual outfit for field sports, and a shower bath in the grandstand.

* * *

The Young Men's Christian Association

During the early part of last school year, the Young Men's Christian Association was organized by Mr. Titus, the district secretary stationed at El Paso, Texas. Quite a number of the young men have been interested in the work of the Association and regular Bible study meetings have been held on Sunday mornings during the year. These meetings have been conducted by several members of the faculty and some of the ministers of Las Cruces have assisted in the work in a way that has been much appreciated. Mr. Titus has been present on several occasions and has addressed large audiences each time.

Much enthusiasm was aroused in the delegates who attended the meeting of Y. M. C. A. men at Douglas, Ariz., in the winter, and this Association decided to raise funds with which to build a building upon our campus. After a vigorous campaign of solicitation they raised enough money to guarantee a new building of some size, which will be erected this summer and fall.

* * *

Other Societies

Several other organizations exist among the students, social, scientific, and otherwise. Among the more important are the Colonia Latina, a group of Spanish-speaking young men who meet socially, the dramatic Club, the Engineering Association, and the Agricultural Club; their names tell their aims. The doings and membership of these and other organizations are duly chronicled in the Swastika.

"Finally, education alone can conduct us to that enjoyment which is, at once, best in quality and infinite in quantity."
—Horace Mann.

"But it was in making education not only common to all, but in some sense compulsory on all, that the destiny of the free republics of America was practically settled."
—Lowell

ALUMNI

Officers of Alumni Association

For 1907-1908.

President	A. M. Sanchez
First Vice-President	A. B. Sage
Second Vice-President	Elizabeth Koger
Secretary	Fanny Ford
Treasurer	O. C. Snow

Class of 1894

Fabian Garcia, M. S. A., Professor of Horticulture and Horticulturist to the Experiment Station, New Mexico College of Agriculture and Mechanic Arts.

Mrs. Agnes Herbert, (nee Williams), B. S., Housewife, Hondo, N. M.

R. Roy Larkin, B. S., Superintendent of City Schools, Las Vegas, N. M.

Lemuel C. McGrath, B. S., Deceased, 1907.

Oscar C. Snow, B. S., Ranchman, Mesilla Park, N. M.

Class of 1895

Mrs. Jessie C. Rhodes, (nee Casad) B. S., Housewife, El Oro, State of Mexico, Mexico.

Class of 1896

Mae Gilmore, B. S., at home, Alto, New Mexico.

Alfred M. Holt, M. S., Deceased, 1901.

Albert H. Peterson, B. S., Mechanic, Chicago, Ill.

Clarence E. Rhodes, B. S., Superintendent Cyanide, Dos Estrellas Mining Co., El Oro, Mexico.

Class of 1897

Joseph F. Bennett, M. S., with the Sullivan Machinery Co., El Paso, Texas.

Elgin B. Holt, B. S.

Arthur E. Williams, B. S., Deceased, 1905.

Class of 1898

Edwin E. Casey, B. S., U. S. V., Deceased, 1898.

Duval G. Cravens, B. S., Head of Department of Mathematics and

First Assistant Head Master, The Mooney School, Murfreesboro, Tenn.

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Charles E. Mead, B. S., Druggist, San Marcial, N. M.

Ivah R. Shallenberger, (nee Mead), B. S., Housewife, San Marcial, N. M.

Isaac H. Stanley, B. S., Silver City, N. M.

William A. Sutherland, B. S., Superintendent of Filipino Students in the U. S., Bureau of Insular Affairs, Washington, D. C.

Lottie Sweet, B. S., Teacher, Las Cruces, N. M.

George M. Williams, B. S., Student and Social Worker, Antioch, Calif.

Class of 1899

Edward J. Coe, B. S., Fruit Grower, Glencoe, N. M.

Walter E. Holt, B. S., Mining, Organ City, N. M.

John D. Tinsley, B. S., Professor of Physics and Soil Physicist, Vice-Director of the Experiment Station, New Mexico College of Agriculture and Mechanic Arts.

Class of 1900

William Cory Meeker, B. S., A. B. Wooster University, 1902; Foreign Missionary, Medellin, Colombia, South America.

Charles Lewis Post, M. S., U. S. Deputy Mineral Surveyor, Las Cruces, N. M.

Archie Bruce Sage, B. S., Associate Professor in Mechanical Engineering, New Mexico College of Agriculture and Mechanic Arts.

Halbert E. P. Thomas, B. S., Deceased.

Class of 1901

Leah Nora Case (nee Newberry), B. S., Housewife, Las Cruces, N. M.

Minnie Wilson Sutherland (nee Newberry), B. S., Housewife, Washington, D. C.

Alfredo Marcos Sanchez, M. S., Assistant Territorial Superintendent of Public Instruction, Santa Fe, N. M.

Matthew Steel, M. S., Graduate Student, Columbia University, New York City.

Class of 1902

Theron Catlin Bennett, B. S., Vice-President of the Victor Cremer Co., Music Publishers, Chicago, Ill.

Elizabeth Koger (nee Coleman), B. S., Housewife, Las Cruces, N. M.

Elizabeth C. Foster, B. S., Teacher, Las Cruces, N. M.

Frances French, B. S., Instructor in New Mexico Normal University, Las Vegas, N. M.

James Stanislaus Macgregor, M. S., Instructor in Steam Engineering, Columbia University, New York City.

Class of 1903

Fannie Ford, B. S., Teacher, Las Cruces, N. M.

Maude McFie, B. S., Housewife, Saltillo, Mexico.

Orrick B. Metcalf, M. S., Mesilla, N. M.

Ina M. Nelson, B. S., Student in Stanford University, Palo Alto, California.

Class of 1904

Clarence D. Case, B. S. in Ag., Ranchman, Las Cruces, N. M.

Lauren W. Case, B. S., Bookkeeper, Bowman's Bank, Las Cruces, N. M.

Lute Foster, B. S., Graduate Student in Domestic Science, Utah Agricultural College, Logan, Utah.

Orpha Bennett Hoblit, B. S., Professor of Spanish and Latin, New Mexico College of Agriculture and Mechanic Arts, 1906-1907.

Pearl C. Miller, B. S., Teacher, Monte Vista, Colo.

Rowena Mott, B. S., Teacher, Las Cruces, N. M.

Class of 1905

Thomas B. Green, B. S. in Ag., Deceased, 1905.

Annetta May Harney, B. S., Student, Normal School, San Diego, Calif.

Reginald H. Hart, B. S. in Ag., El Paso, Texas.

Benjamin F. Nabours, B. S. in M. E., Ranchman, Estey, N. M.

Rafael Ramires, B. S. in Ag., Deceased, June, 1907.

Harry H. Schutz, B. S., B. S. A., Cornell, 1907; Special Student in Agriculture, Cornell University, Ithaca, N. Y.; Editor Cornell Countryman, 1907-1908.

Class of 1906

John F. Blinn, B. S., Assay Office of Kansas City Consolidated Smelter, El Paso, Texas.

Merle Anna Blinn, B. S., Teacher, Hood River, Oregon.

John William Boutz, B. S. in Ag., Agriculturist, Harris, Sask., Canada.

Archie A. Brown, B. S. in M. E., in A. T. & S. F. Ry. Shops, San Francisco, Calif.

Ulysses G. Brown, B. S., in M. E., Special Apprentice, A. T. & S. F. Ry., San Francisco, Calif.

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Jose A. Bruno, B. S. in M. E., Planter, Guayama, Puerto Rico.

Ruth Coleman, B. S., Student Texas University, Austin, Texas.

Guy C. Given, B. S., Assistant Chemist, Experiment Station, State College, Penn.

Earl Addison Graham, B. S. in M. E., Engineering Apprentice with Westinghouse Company, Pittsburg, Pa.

Charles DeWitt Miller, B. S., Student in New Mexico College of Agriculture and Mechanic Arts, Agricultural College, N. M.

Bertha Peet, B. S., at home, Monticello, Ind.

Class of 1907

Vicente Davila, B. S. in M. E., Ranchman, Sabinas, Mexico.

Ralph B. Deemer, B. S., Second Assistant in Chemistry, New Mexico College of Agriculture and Mechanic Arts, Agricultural College, N. M.

Allen G. Graham, B. S. in Ag., Graduate Student in Soil Physics, New Mexico College of Agriculture and Mechanic Arts, Agricultural College, N. M.

John George Miller, B. S. in M. E., Assistant in Mechanical Engineering, New Mexico College of Agriculture and Mechanic Arts, Agricultural College, N. M.

Jose Quintero, B. S. in M. E., Assayer for the Sierra County Mining Co., Hillsboro, N. M.

Paul C. Standley, B. S., Assistant in Biology, New Mexico College of Agriculture and Mechanic Arts, Agricultural College, N. M.

Catalog of Students

Senior

Davila, Vicente	Sabinas, Mexico
Deemer, Ralph B.	Coahuila, Mexico
Graham, Allen G.	Mesilla Park
Hughes, John D.	Albuquerque
Miller, John G.	Santa Fe
Quintero, Jose	Las Cruces
Standley, Paul C.	Springfield, Missouri

Junior

Bloodgood, Dean W. A.	Kingston
Dessauer, Phillip E.	Las Cruces
Edwards, Eaton	Mesilla
Endicott, William	Lake Valley
Gallacher, William	White Oaks
Helde, George G.	Central
Henry, Claude P.	Yazoo City, Mississippi
Henry, H. Cornelius	Yazoo City, Mississippi
Hornbrook, Earl C.	Elm Grove, West Virginia
Mundell, Jesse E.	Capitan
Newberry, Henry C.	Mesilla Park
Pattison, William	Gallup
Poe, James R.	Mesilla Park
Price, Robert C.	Cleveland, Ohio
Quintero, Fernando	Las Cruces
Steel, James A.	Las Cruces
Stoneking, Jay B.	Rosedale
Stover, Maggie M.	Elk
Sweet, Jacob A.	Las Cruces
Weddell, Justin R.	Morgan Park, Illinois

Sophomore

Alleman, Herbert N.	Chihuahua, Mexico
Bruesch, Fred H.	Central
Friend, Lois	Las Cruces
Gonzales, Juan A.	Monclova, Mexico
Hutchinson, Leah	El Paso, Texas
Hyatt, John J.	Deming
Morse, Katrina	Independence, Iowa
McVicker, Alexander	Gallup

Nabours, Myrtle V.	White Oaks
Ramirez, Juan M.	Las Cruces
Stewart, Herbert C.	Mesilla Park
Uranga, Armando R.	Las Cruces
Walker, Lancelot F.	Las Cruces

Freshmen

Ames, Walter	Las Cruces
Baker, Stuart K.	Las Cruces
Burke, Edna	Las Cruces
Carpenter, Cecil M.	Knob Noster, Missouri
Clark, Warren O.	Campbell, Texas
Deemer, Dixon F.	Berkeley, California
Forwood, May	Las Cruces
Foster, Doris	Las Cruces
Fraker, Arthur	Ocate
Fuente, Erensto de la	Nadadores, Mexico
Lester, Frank E.	Deming
Oliver, Ruth E.	Fierro
Pritchard, J. Leroy	Fairport, Missouri
Quesenberry, Elizabeth	Las Cruces
Redding, Edward	El Paso, Texas
Redding, Vivian	El Paso, Texas
Romero, Carlos N.	Chihuahua, Mexico
Taylor, Lytton	El Paso, Texas
Turner, Romeo	New Franklin, Missouri
Walker, Susie	Las Cruces
Young, Donald W.	Las Cruces

Special

Baggs, Jeanette	Wheeling, West Virginia
Baggs, Wilbur J.	Wheeling, West Virginia
Birt, Mary L.	Albuquerque
Blum, Walter S.	Savannah, Georgia
Brownlee, Paul	Sylvia, Kansas
Deemer, Phyllis B.	Berkeley, California
Enriquez, Ignacio	Chihuahua, Mexico
Espy, Robert	Van Horn, Texas
Forsythe, Florence	Winslow, Arizona
Hines, Raye	Mesilla Park
Howe, Elbridge	El Paso, Texas
Hyatt, Ethel	Deming

Johnson, Walter	Larimore, North Dakota
Keith, Anna	Deming
Kiehne, Myrtle	Socorro
Leonard, Albert	Boston, Massachusetts
Meyers, Clarence	Hillsboro
Mitchell, Ida C.	Sterling, Texas
McGregor, Grant R.	Lake Valley
Piggott, Fred K.	Chihuahua, Mexico
Read, William F.	Tierra Amarilla
Seeger, May	Alamogordo
Sessoms, Ruby	Waycross, Georgia
Sharpe, Jennie	Topeka, Kansas
Steeg, Elberta F.	Chicago, Illinois
Thompson, Clara	Monrovia, California
Thompson, Ruth	Monrovia, California
Tracy, Mary	Deming
Wilson, Clarence P.	El Paso, Texas

Stenography

Anderson, John A.	Hillsboro
Boone, Hettie,	Alamogordo
Brown, Grace	Gallup
Brownlee, Nelle	Sylvia, Kansas
Buvens, Olive	Mesilla Park
Diaz, Ambrosio	Chihuahua, Mexico
Ford, Lela Ray	Las Cruces
Graham, James	Aragon
Green, Mrs. Etta	Roswell
Horton, Robert E.	Las Cruces
Kelley, Philip S.	Hillsboro
Kiehne, Estelle	Socorro
Lucero, Francisco F.	Las Cruces
Miller, Charles D.	Denver, Colorado
Oliver, Elizabeth	Fierro
Ortiz, Amada	Santa Fe
Ortiz, Lenita	Santa Fe
Ortiz, Miguel A.	Chihuahua, Mexico
Romero, Rafael	Chihuahua, Mexico
Ross, Carol	East Las Vegas
Scoggins, Clifford O.	Mesilla Park
Wade, Edward C.	Las Cruces
Wientge, Eve	Santa Fe

Preparatory Department

Senior Preparatory

Bell, Walter R.	Mayhill
Bonem, Hannah	San Marcial
Brown, William F.	Gallup
Campbell, William E.	Bower Mills, Missouri
Carrera, Emile P.	Las Cruces
Elliott, Richard H.	Cambray
Herrmann, H. Leslie	Tyrone
Isaacks, Emitt	Las Cruces
Johnson, J. Stanley	New York, New York
Lane, Austin R.	San Marcial
Mandell, Bertha	Mesilla Park
Mayer, Bertha	White Oaks
Miller, Lawrence	White Spur, Texas
Poe, Archie	Mesilla Park
Powers, John	Santa Rita
Quesenberry, George R.	Las Cruces
Skidmore, Frank S.	El Paso, Texas
Stewart, Rupert	Mesilla Park
Stover, Allie	Elk
Wade, Wilson	Las Cruces
Wilson, Blanche	Kingston
Wilson, Earl J.	Kingston

Junior Preparatory

Allen, Carl G.	Grant's Pass, Oregon
Beckwith, William H.	Florence, Alabama
Boone, Zuma	Las Vegas
Brunner, Herbert	El Paso, Texas
Burch, Calita	Las Cruces
Buvens, Inez	Mesilla Park
Buvens, James	Mesilla Park
Clancy, Carolina	Puerto de Luna
Durling, Nethie	East Las Vegas
Engelking, Conrad	El Paso, Texas
Forsyth, Harvey	Fort Bayard
Gray, Seaborn P.	Capitan
Harwell, Roland	Silver City
Hyatt, Alonzo	Deming

Keese, Oliver	Mesilla Park
Kelly, Frank	Water Canon
Kelly, William	Water Canon
Lyon, Edwin	Mesilla Park
McCowen, Henry	Organ
Nabours, Florence	Three Rivers
Parks, Olive	Lake Valley
Phillips, Shelby	Nutt
Pohl, Lillian	Belen
Quesenberry, Richard	Las Cruces
Rountree, Edna	Corona
Taylor, Robert	Dawson
Walker, Della	Mesilla Park
Wilson, Oscar	Kingston
Yeargin, John L.	Deming

A Class

Buvens, Kathleen	Mesilla Park
Crist, Audie	Duran
Davis, Nina	Mesilla Park
Dessauer, Numa	Las Cruces
Exter, May	Kelly
Foster, Trace	Las Cruces
Fullerton, Elmer	Socorro
Gilliam, Carmen	Mesilla Park
Graham, Earl J.	Engle
Hirsch, Homer C.	Hillsboro
Howard, William Sidney	Mesilla Park
Howell, Burt	Mesilla Park
Jiminez, Jose	Las Cruces
Kirwan, Mary	Mesilla Park
Longbottom, John G.	Lake Valley
McWilliams, DeWitt	Clifton, Arizona
Medley, Dee M.	Valentine, Texas
Posey, Robert	Cloudcroft
Powell, Roy	Fort Davis, Texas
Roberts, Robert	Las Cruces
Russell, Rolla	Magdalena
Scott, Ben	Las Cruces
Smith, Lena	Cloudcroft
Turner, Morris	Las Cruces

B Class

Anthony, Marc	Organ
Bailey, Frank	Lowell, Arizona
Baker, Lena	La Cananea, Mexico
Baker, Roy	Las Cruces
Berkey, Frank	Las Cruces
Burke, Edith	Las Cruces
Chavez, Eulalio	Chihuahua, Mexico
Clark, Ellis B.	Solomonville, Arizona
Edwards, George	Mesilla
Edwards, Harold	Las Cruces
Fernandez, Jose	Chihuahua, Mexico
Ford, Cora	Las Cruces
Ford, Willie	Las Cruces
Glennon, Joseph	El Paso, Texas
Hall, Edward	Nutt
Hall, James T.	Nutt
Hall, William	Nutt
Howell, William	Mesilla Park
Llewellyn, William H. H.	Las Cruces
Lohman, Oliver	Las Cruces
Longbottom, Mary Onis	Lake Valley
Love, Baylus	Sierra Blanca, Texas
Maloney, James	Las Cruces
McGinnis, Marie Antonia	Las Cruces
Parks, Joseph	Lake Valley
Pohl, Ella	Belen
Powell, Thomas	Fort Davis, Texas
Roble, Carlos	Las Cruces
Romero, Jose	Las Cruces
Scoggins, Belle	Mesilla Park
Sisneros, Andres	Las Cruces
Spivey, Leda	El Paso, Texas
Sullivan, John D.	Bloomfield
Talavera, Reynaldo	Chihuahua, Mexico
Taylor, George	Dawson

Special Preparatory

Allen, Fred	Grant's Pass, Oregon
Bell, Charles	Mayhill
Birchfield, Charles	Deming

Clayton, Verner	Tularosa
Dessauer, Florence	Las Cruces
Esperon, Jose	Parral, Mexico
Ferran, William	Coyote
Freeman, California	Las Cruces
Freeman, George	Las Cruces
Gutierrez, Alfonso	Chihuahua, Mexico
Henderson, Emmett	Abilene, Texas
Johnson, George	Globe, Arizona
King, Elmer C.	Farmington
Kingston, Joseph	Toyahvale, Texas
Land, Alvin	Las Cruces
Larquier, Pedro	Chihuahua, Mexico
Larson, Louie	Springer
Ochoa, Carlos	Guadalupe, Mexico
Orear, Margarette	Albuquerque
Pino, Ottie	El Paso, Texas
Pohl, Arnold	Belen
Porter, Joseph	Aragon
Rubiolo, Grace	Chicago, Illinois
Sampson, Clarence J.	Las Cruces
Scoggins, Homer	Mesilla Park
Scoggins, Leota	Mesilla Park
Seeger, Fred	Alamogordo
Smith, Ollie	Cloudcroft
Talavera, Ernesto	Chihuahua, Mexico
Young, Leo	Capitan

List of Music Pupils

Piano

Baker, Lena.
Bonem, Hannah.
Boone, Zuma.
Brown, Grace.
Buvens, Kathleen.
Buvens, Olive.
Crist, Audie.
Clancy, Carolina.
Clayton, Verner.
Dessauer, Florence.
Durling, Nethie.
Forsyth, Florence.
Haggart, Margaret.
Hines, Raye.
Keith, Anna.
Kirwan, Mary.
Larson, Louis.
Mayer, Bertha.
Mitchell, Ida.
Morse, Katrina.
Nabours, Myrtle.
Oliver, Ruth.
Orear, Margaret.
Read, William F.
Seeger, May.
Sessoms, Ruby.
Spivey, Leda.
Thomas, Jennie.
Tracey, Mary.
Walker, Della.
Walker, Susie.
Wientge, Eve.

Voice

Bennett, Martha A.
Boone, Zuma.
Ford, Alice.
Fraker, Arthur.
Haggart, Margaret.
Helde, George.
Henry, Cornelius.
Hoblit, Mrs. M. L.
Hornbrook, Earl.
Kiehne, Myrtle.
Larson, Louis.
McCowen, Sophie.
McWilliams, DeWitt.
Miller, Charles.
Mitchell, Ida.
Mitchell, S. R.
Oliver, Elizabeth.
Ortiz, Lenita.
Pritchard, Leroy.
Roberts, Mrs. L. L.
Rountree, Edna.
Seeger, May.
Sharpe, Jennie.
Skidmore, Frank.
Sweet, Jacob.
Weddell, Justin.
Wenz, Walter.
Wooton, E. O.
Young, Donald.

List of Students Tabulated According to Classes

Seniors	6
Juniors	20
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Freshmen	21
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Piano Pupils	32
Voice Pupils	29
Total	313
Names repeated	52
Total	261

Program of Recitations

Time	Senior Preparatory.	Freshman	Sophomore
8:30	Agronomy (M. W. F.) Sewing (M. T. W. Th.)	Plane Geometry	English Physics (W.)
9:25	Algebra	Spanish	Spanish Physics
10:20	Spanish	Spanish Chemistry Agronomy (M. T. F.) Horticulture (W. Th.)	Astronomy Chemistry
11:15	Military Drill (M. W. F.) Physical Culture (M. W. F.)	Military Drill (M. W. F.) Physical Culture (M. W. F.) Chemistry (T. Th.) Agronomy (T.) Horticulture (Th.)	Military Drill (M. W. F.) Physical Culture (M. W. F.) Chemistry (T. Th.)
1:30	English (M. T. W. F.) Cooking (F.)	English	Plane Trigonometry
2:25	Latin Cooking (M. F.)	Biology (M. W. F.) Carpentry and Woodturning (M. W. F.) Mechanical Drawing (T. Th.)	Zootechny (M. W. F.) Pattern Making Floriculture (M. W. F.) Horticulture (T. Th.)
3:20	History (T. W. Th. F.) Cooking (F.)	Biology Carpentry and Woodturning (M. W. F.) Mechanical Drawing (T. Th.)	German Pattern Making Floriculture (W.) Zootechny (W)

First Term

Junior	Senior	Stenography Commerce
Mineralogy Physics (W.) Domestic Science	Mineralogy Applied Mechanics Agronomy (T. Th.)	English Commercial Geography Bookkeeping
Mineralogy Physics	Mineralogy Hydraulics	Spanish Stenography
Astronomy English (T. Th.)	Dietetics (M. W. F.) English (T. Th.)	Spanish Advanced Stenography Commercial Arithmetic
Analytic Geometry Entomology (M. W. F.) Meteorology (T. Th.)	Dietetics (M. W. F.) Valve Gears (M. W. F.) Heating and Ventilating (T. Th.) Direct Current Machines Highway Engineering (M.) Agricultural Chemistry (M. W. F.)	Military Drill (M. W. F.) Physical Culture (M. W. F.) Bookkeeping (T. Th.)
Elementary Mechanics (M. T. W. Th.) English (F.) Pomology (M. T. W. Th.) Domestic Science (T. W. Th.) Millinery (M.)	Stereotomy Psychology Animal Breeding (M. W. F.) History of Agriculture (T. Th.) Dietetics (M.)	English Commercial Spanish
Iron Work (M. W. F.) Graphic Statics (T. Th.) Railway Surveying (M.) Pomology (F.) Domestic Science (T. W. Th.) Millinery (M.)	Machine Design (M. W. F.) Machine Shop (T. Th.) Dynamo Design (M. W. F.) Electrical Laboratory (T. Th.) Highway Engineering (T. W. Th. F.) Zootechny (Th.)	Stenography
Iron Work (M. W. F.) Graphic Statics (T. Th.) Railway Surveying (M. W. F.)	Machine Design (M. W. F.) Machine Shop (T. Th.) Dynamo Design (M. W. F.) Electrical Laboratory (T. Th.) Highway Engineering (Th.) Zootechny (M. T. Th.) Dietetics (T.)	Special Work Spelling (M. W. F.) Commercial Letter Writing (T. Th.)

Program of Recitations

Time	Senior Preparatory.	Freshman	Sophomore
9:00	Sewing	Plane Geometry	English Physics (W.) Zootechny (M.) Dairying (T. W. Th. F.)
9:50	Algebra	Spanish Chemistry (F.)	Spanish Physics Chemistry (F.) Zootechny (M. W.) Dairying (T. Th.)
10:40	Spanish	Spanish Chemistry Zootechny (Th. F.) Horticulture (M. T. W.)	Descriptive Geometry Chemistry
11:30	Military Drill (M. W. F.) Physical Culture (M. W. F.) Sewing (F.)	Military Drill (M. W. F.) Physical Culture (M. W. F.) Chemistry (T. Th.) Zootechny (Th.) Horticulture (T.)	Military Drill (M. W. F.) Physical Culture (M. W. F.) Chemistry (T. Th.) Sperical Trigonomotry (T. Th.) Mechanical Drawing (T. Th.)
1:40	English (M. T. W. Th.)	English	Surveying (M. W. F.) Mechanical Drawing (T. Th.) Livestock (T. Th.) Home Nursing (T. Th.) German
2:30	Latin Horticulture (M. W. .F)	Biology (M. W. F.) Forging	Surveying (M. W. F.) Farm Accounts (T. Th.) Dressmaking (M. W. F.) Drafting (T.) Textiles (Th.)
3:20	English History (T. W. Th. F.) Horticulture (M.)	Biology Forging	Surveying (M. W. F.) Dressmaking (W.) Drafting (T.)

Second Term

Junior	Senior	Stenography Commerce
Geology Physics (W.) Zootechny (T. W. Th. F.) Domestic Science (T. Th.)	Geology Applied Mechanics	English Economics (M. T. W. Th.)
Mechanism Physics	Therodynamics Alternating Current Machines Irrigation Engineering Invalid Cookery (M. W. F.)	Spanish Stenography
Calculus Horticulture (T. Th.)	Plant Breeding (T. Th. F.) Farm Mechanics (M. W.) Invalid Cookery (M.)	Spanish Advanced Stenography Civics
Political Economy (T.) English (Th.) Astronomy (M. W.) Railway Surveying (M. F.)	Electrical Engineering Masonry Construction (M. W. F.) Farm Mechanics (M. W.) Advanced American History	Military Drill (M. W. F.) Physical Culture (M. W. F.) Bookkeeping (T. Th.)
Railway Surveying (T. Th.) Political Economy (M. W. F.)	Irrigation Field Work (T. Th.) Electrical Measurements (T. Th. F.) Business Law (M. W.)	English Spanish Stenography
Railway Surveying (T. Th.) Machine Design (T. Th.) English (M. W.) Soil physics (T. W. Th. F.) Zootechny (M.) Domestic Science (M. W. F.)	Irrigation Field Work (T. Th.) Dynamo Design (T. Th.) English (M. W.) Agricultural Chemistry (T. Th. F.) Applied Mechanics Laboratory (M. W.) Invalid Cookery (T. Th.)	Stenography Bookeeping
Railway Surveying (T. Th.) Machine Design (T. Th.) Soil Physics (T. W. Th. F.) Domestic Science (M. W. F.)	Irrigation Field Work (T. Th.) Dynamo Design (T. Th.) Agricultural Chemistry (T. Th. F.) Applied Mechanics Laboratory (M .W.) Invalid Cookery (T. Th.)	Commerical Spanish Bookkeeping Spelling (M. W. F.)

Program of Recitations

Time	Senior Preparatory.	Freshman	Sophomore
8:30	Military Drill (M. W. F.) Physical Culture (M. W. F.) Livestock (T. Th.) Sewing (T. Th.)	Military Drill (M. W. F.) Physical Culture (M. W. F.)	Military Drill (M. W. F.) Physical Culture (M. W. F.) Physics (Th.) Bacteriology (T. Th.)
9:25	Botany (M. T. W. F.) Livestock (Th.)	Solid Geometry	Physics German Agronomy (T.) Laundering (T.)
10:20	Spanish	Spanish Chemistry Zootechny (M. W. F.) Farm Mechanics (T. Th.)	Higher Algebra Chemistry
11:15	Latin	Latin Chemistry Zootechny (F.) Farm Mechanics (T. Th.)	Chemistry
11:31	Algebra	English	English Topographical and City Surveying (M. W. F.) Olericulture (M. T. F.) Agronomy (W. Th.)
2:25	English (T. W. Th. F.) Livestock (M.) Hygiene (M.)	Biology (M. W. F.) Spanish Advanced Carpentry (M. W. F.) Mechanical Drawing (T. Th.)	Forestry (M. W. F.) Topographical and City Surveying (M. W .F.) Olericulture (T.) Spanish Foundry (M. W. F.) Mechanical Drawing (T. Th.) Zootechny (Th.) Dressmaking (T. W. Th. F.) Laundering (M.)
2:30	Sewing (M. W.)	Biology Advanced Carpentry (M. W. F.) Mechanical Drawing (T. Th.)	Medieval and Modern History Topographical and City Surveying (M. W. F.) Foundry (M. W. F.) Mechanical Drawing (T. Th.) Zootechny Physiology

Third Term

Junior	Senior	Stenography Commerce
Calculus Agronomy (M. T. W. F.) Physics (Th.) Domestic Science (M. T.)	Power Plants Water Supply and San. Eng.	Military Drill (M. W. F.) Physical Culture (M. W. F.) Bookkeeping (T. Th.)
Physics Metallurgy (T. W. Th. F.)	Engineering Structures (M. W. F.) Telephone Engineering (M. W. F.) Specifications and Contracts (T. Th.) House Sanitation and Management	Stenography Bookkeeping
Steam Boilers and Engines Plant Physiology (M. T. W. Th.) Agronomy (F.) Domestic Science (F.)	Geology Irrigation (M. W. F.) Landscape Gardening (T. Th.)	Spanish Advanced Stenography Bookeeping
Astronomy (T. Th.) Railway Surveying (W. F.) English (T. Th.) Plant Physiology (W.) Agronomy (F.) English (M.) Domestic Science (F.)	Irrigation (F.) English (T. Th.)	Office Practice
Road Construction Railway Surveying (T. Th.) Olericulture (M. T. F.) Domestic Science (W. Th.)		English Stenography Commercial Law
Machine Shop (M. W. F.) Machine Design (T. Th.) Railway Surveying (T. Th.) Olericulture (T.) Domestic Science (W. Th.) Electrical Laboratory (M. W. F.) Electricity and Magnetism (T. Th.)	Mechanical Engineering Lab. (M. W. F.) Electrical Engineering Lab. (M. W. F.) Bridge Design Agricultural Chemistry (M. W. F.)	English (T. W. Th. F.) Spanish Spanish Stenography
Medieval and Modern History Railway Surveying (T. Th.) Machine Shop (M. W. F.) Machine Design (T. Th.) Electrical Laboratory (M. W. F.) Physiology	Mechanical Engineering Lab. (M. W. F.) Electrical Engineering Lab. (M. W. F.) Bridge Design Agricultural Chemistry (M. W. F.)	Commercial Spanish Spelling (M. W. F.) History of Finance (M. W. F.)

BaH
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# of Agriculture and Mechanic Arts.

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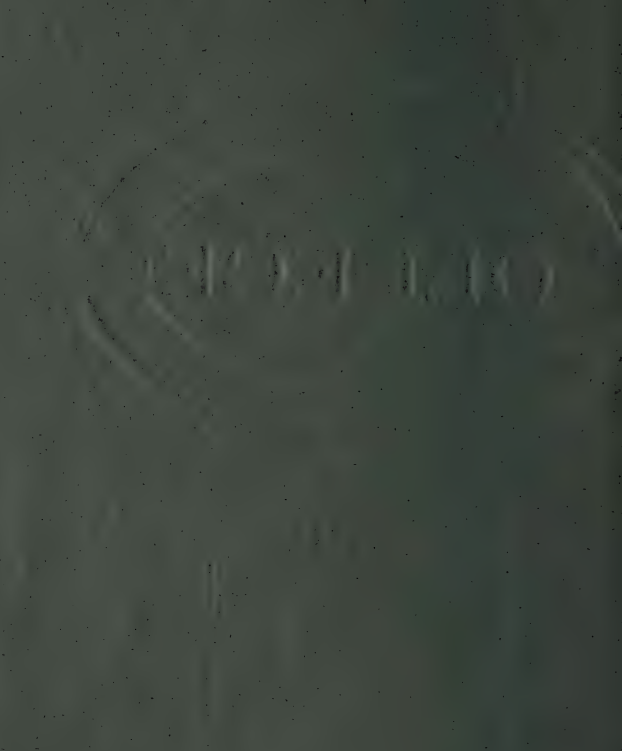

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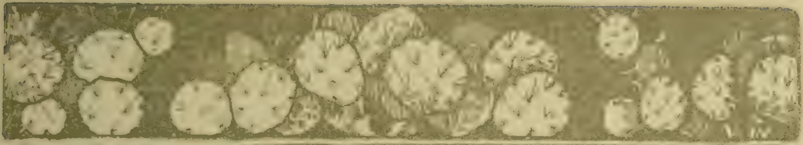

Vol. 2 College Record No. 1

EIGHTEENTH
ANNUAL CATALOG

New Mexico College of Agriculture and Mechanic Arts

Agricultural College

Catalog of Students for 1907 - 1908	Announcements for 1908 - 1909

Published Quarterly by the College.
JULY 1908

J A W

Calendar for 1908-1909

* * *

September 8, 1908. Entrance Examinations.

September 8-9, 1908. Matriculation of students and assignment of work by instructors at beginning of first semester.

November 26, 1908. Thanksgiving holiday.

December 19, 1908. Christmas Vacation begins

January 4, 1909. Christmas Vacation ends.

January 18-20, 1909. Examinations at the end of the first semester.

January 25, 1909. Classification of students and assignment of work for second semester.

February 22, 1909. Washington's Birthday—holiday.

May 7, 1909. Field Day.

May 19-21, 1909. Examinations at the end of second semester.

May 23, 1909. Baccalaureate sermon, 11 a. m.

May 24, 1909. Exercises of Musical Department.

May 25, 1909. Meeting of the Board of Regents.
Class Day Exercises.
Alumni Banquet.

May 26, 1909. Commencement Exercises, 10:30 a. m.

Board of Regents

R. E. McBride, President, Las Cruces.

Vincent May, Sec'y and Treas., Las Cruces.

J. M. Webster, Hillsboro.

R. R. Larkin, Las Vegas.

Hiram Hadley, Las Cruces.

* * *

Advisory Members

Hon. George Curry, Governor of New Mexico, Santa Fe.

Hon. J. E. Clark, Territorial Superintendent of Public Instruction, Santa Fe.

"Study is like the heaven's glorious sun."—Shakespeare.

FACULTY

Winfred Ernest Garrison, A. B., Yale, 1894; Ph. D., University of Chicago, 1897. President.

Luther Foster, M. S. A., Iowa State College. Director of the Experiment Station and Dean of Agriculture.

Clarence T. Hagerty, B. S., Notre Dame University, 1890; M. S., ibid., 1895. Professor of Mathematics and Astronomy.

Elmer O. Wooton, B. S., Earlham College, 1889: A. M., ibid, 1896. Professor of Biology and in charge of Geology.

John Dabney Tinsley, B. S., New Mexico College of Agri. and Mech. Arts, 1899. Professor of Physics and Soil Physics.

John J. Vernon,* B. Agr., Iowa State College, 1897; M. S. A., ibid., 1900. Professor of Agriculture and Supt. of Grounds.

Merritt Lorraine Hoblit, A. B., Kalamazoo College, 1901; A. B., University of Chicago, 1901. Professor of Spanish and Latin.

Raleigh Frederick Hare, B. S., Alabama Polytechnic Institute, 1892; M. S., ibid., 1893. Professor of Chemistry.

John R. Macarthur, A. B., University of Manitoba, 1892; Ph. D., University of Chicago, 1903. Professor of English and History.

Fabian Garcia, B. S., New Mexico College of Agriculture and Mechanic Arts, 1894; M. S. A., ibid., 1905. Professor of Horticulture.

Eaton A. Edwards,* Lieutenant Colonel U. S. Army, retired. Professor of Military Science and Tactics.

Caroline W. Daniels, M. A., Ripon College. Associate Professor of English and Dean of Women.

Margaret H. Haggart, B. S., Kansas State Agricultural College, 1905. Professor of Household Economics.

John Oliver Miller, B. S., University of Colorado, 1899. Registrar and Assistant in the Department of Stenography and Typewriting.

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* Resigned June, 1908.

"Since we are what we are by the impacts of those who surround us, those who surround themselves with the highest will be those who change into the highest."—Henry Drummond.

G. Eugene Lain, M. A., Southern Iowa Normal School. Principal of Department of Stenography and Typewriting.

Burton P. Fleming, B. S., Utah Agricultural College, 1900; M. E., Cornell University, 1906. Professor of Irrigation Engineering.

P. E. McClenahan, Ph. B., Iowa State University, 1905: A. M., ibid., 1906. Principal of the Preparatory Department.

Archibald Bruce Sage, B. S., New Mexico College of Agriculture and Mechanic Arts. Professor of Mechanical Engineering.

Other Officers of Instruction

Elizabeth E. Shimer,* M. E., State Normal School, Kutztown, Pa., 1891. Assistant in Preparatory Department.

Florence J. Foster, B. S., Montana Agricultural College, 1896. Associate Professor of Household Economics.

Singleton Reynolds Mitchell, B. S., Purdue University, 1902. First Assistant in the Chemistry Department.

John George Miller, B. S.,† in M. E., New Mexico College of Agriculture and Mechanic Arts, 1907: M. E., ibid., 1908. Assistant in Mechanical Engineering.

Jennie A. Thomas,* State Normal School, Oshkosh, Wisconsin. Assistant in Preparatory Department.

John A. Anderson, Assistant to the Registrar and in the Department of Stenography and Typewriting.

A. Cleveland Hartenbower,‡ B. S., Oklahoma Agricultural and Mechanical College, 1905. Assistant in Agronomy.

Lucy M. Lewis, A. B., University of Illinois, 1905; B. L. S., ibid., 1906. Librarian and Assistant in English.

Laurenz Greene, B. S.,‡‡ Kansas State Agricultural College, 1906. Assistant in Horticulture.

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* Resigned June, 1908.

† Resigned April, 1908.

‡ Resigned January, 1908.

‡‡ Resigned September, 1907.

Paul C. Standley, B. S., New Mexico College of Agriculture and Mechanic Arts, 1907. Assistant in Biology.

Ralph Deemer, B. S.,** New Mexico College of Agriculture and Mechanic Arts, 1907. Second Assistant in Chemistry.

Arthur Watkins, L. T. S. C., London Tonic Sol Fa College, New England Conservatory. Director of Music.

Frank Stockton, B. S., University of Nebraska, 1907. Assistant in Physics.

A. D. Halloway, B. S.,†† Kansas Agricultural College. Assistant in Horticulture.

S. B. Durham,* B. S., Oklahoma Agricultural College, 1907. Assistant in Dairying.

H. H. Simpson,† B. S., Iowa State College. Assistant in Animal Husbandry.

W. F. Schaphorst,† B. S., South Dakota Agricultural College, 1905. Assistant Professor in Mechanical Engineering.

W. G. Hummel,†† B. S., Illinois University, Assistant in Agronomy.

L. A. Pringle,** Ph. B., Iowa College, 1904. Second Assistant in Chemistry.

Jesse E. Mundell,‡ B. S. A., New Mexico College of Agriculture and Mechanic Arts, 1908. Assistant in Horticulture.

J. R. Burkey, C. E., Ohio State University, 1908. Assistant in Mathematics.

Maria H. Crowe, Housekeeper of Woman's Hall.

Etta Green, College Stenographer.

Elizabeth Oliver, Station Stenographer.

** Resigned March, 1908.
†† Resigned December, 1907.
* Appointed September, 1907.

† Appointed November, 1907.
†† Appointed January, 1908.
** Appointed March, 1908.

‡ Appointed May, 1908.

Education, we are often told, is a drawing out of the faculties."—Lowell.

FACULTY COMMITTEES

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COURSES OF STUDY

M. L. Hoblit, *Chairman;* E. O. Wooton, A. B. Sage.

CATALOG

E. O. Wooton, *Chairman;* J. R. Macarthur, J. O. Miller.

JUDICIARY

R. F. Hare, *Chairman;* C. T. Hagerty, M. H. Haggart.

ENTERTAINMENT

C. W. Daniels, *Chairman;* F. Garcia, B. P. Fleming.

EXTENSION WORK AND ADVERTISING

J. O. Miller, *Chairman;* G. E. Lain, J. D. Tinsley.

STUDENT CONFERENCE

C. T. Hagerty, *Chairman;* F. Garcia, M. H. Haggart.

LIBRARY

J. D. Tinsley, *Chairman;* J. R. Macarthur, E. O. Wooton, L. M. Lewis, *ex-officio.*

ATHLETICS

B. P. Fleming, *Chairman;* R. F. Hare, J. O. Miller.

LITERARY SOCIETIES AND PAPER

J. R. Macarthur, *Chairman;* M. L. Hoblit, P. E. McClenahan.

Note: The president is ex officio member of all committees.

History

ON February 28, 1899, the Twenty-eighth Assembly of New Mexico approved an act establishing the New Mexico College of Agriculture and Mechanic Arts.

As defined by the act "The Agricultural College created and established by this act shall be non-sectarian in character, and devoted to practical instruction in agriculture, as well as a thorough course of instruction in all branches bearing upon agriculture and other industrial pursuits."

"The course of instruction of the college hereby created shall embrace the English language, literature, mathematics, philosophy, civil engineering, chemistry, animal and vegetable anatomy and physiology, the veterinary art, entomology, geology, political, rural, and household economy, moral philosophy, history, mechanics, and such other sciences and courses of instruction as shall be prescribed by the regents of this institution of learning."

The act also gives assent to an act of Congress, known as the Hatch Act, approved on March 2, 1887, whereby Agricultural Experiment Stations may be established as departments of the land grant colleges. The college was formally opened on Tuesday, March 10, 1890.

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Location

THE New Mexico College of Agriculture and Mechanic Arts occupies a beautiful and commanding position just to the east of Mesilla Park, Doña Ana county. A few miles to the east rise the Organ Mountains, one of the most picturesque ranges of the Rockies. To the west at a distance of three miles flows the Rio Grande. Mesilla Park is a rapidly increasing and thriving little town containing several stores, a comfortable hotel, a public school, and an Episcopal church. It is situated on the main line of the Santa Fe railway, running from Albuquerque to El Paso. The latter city, which is only forty miles distant and about an hour's journey on the train, is the junction of no less than nine railroad lines. This fact makes the college easily accessible from all parts of the Territory and its borders. To the north of the college, at a distance of about two and

"Of all the changes taking place the most significant is the growing desire to make the acquirement of knowledge pleasurable rather than painful."—Herbert Spencer.

a half miles, is the town of Las Cruces, which has a population of about four thousand. Here are to be found several educational institutions consisting of a public school, a large convent conducted by the Sisters of Loretto, and two mission schools. Regular church services are held in Las Cruces by the Methodist, Presbyterian, and Roman Catholic denominations, and arrangements are made whereby college conveyances take the students to and fro on Sundays. The glorious weather throughout the whole year and the healthfulness of the Mesilla valley, together with the presence of the college and its preparatory school, make this portion of the territory a most desirable locality for parents who wish a combination of climatic and educational advantages. The community is morally a most wholesome one. There is no saloon in Mesilla Park, and a recent act of the legislature has made it illegal to open one within a mile of the limits of the college property. This will keep these undesirable features at a distance of almost two miles from our main buildings.

Agricultural College

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Income

The revenues of this College are derived from the following sources:

1. Students' fees.

2. Sale of farm products.

3. Rentals and other income from Territorial Land endowment.

4. Territorial tax and special appropriations.

5. The United States under Congressional Act of August 30, 1890—the Morrill fund.

6. The United States, under Congressional Act of March 2, 1887—the Hatch fund.

7. The United States, under Congressional Act of March 16, 1906—the Adams fund.

8. The United States, under Congressional Act of March 4, 1907—the Nelson fund.

The money received from fees and farm products has, so far, been very limited, and has been applied to the payment of such expenses as are not provided for by act of Congress.

The last Territorial Legislative Assembly passed a bill appropriating $16,000 annually for the next two years to cover administrative and other expenses. It also provided for the sale of $30,000 in bonds, the proceeds of such bonds to be used in erecting some much needed new buildings.

The Morrill fund was created "for the more complete endowment and support of the Colleges of Agriculture and Mechanic Arts in the several States and Territories." The College received this fund first in 1890, to the amount of $15,000; the fund is now $25,000. This fund can be applied *only* to "instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural, and economic sciences, with special reference to their application in the industries of life, and to the facilities for such instruction."

The Hatch fund was established for the maintenance of Agricultural Experiment Stations as departments of the Agricultural Colleges. This appropriation must be used for "paying the necessary expenses of conducting investigations and experiments, and printing and distributing the results." Bulletins showing progress must be printed each quarter, and be sent to each newspaper in the Territory and to all farmers who apply for them. This fund first became available for this College in 1889-90, to the amount of $10,000. Since July 1, 1890, $15,000 a year have been received. *After the first year, only five per cent. of this fund may be used to erect, enlarge, or repair buildings for the use of the Exepriment Station; and no part of it may be applied to the expenses of instruction or to general college purposes. It must be applied exclusively to the carrying on of agricultural experiments and to the dissemination of the results thereof.*

By the provisions of the Adams Act, the college receives an additional appropriation "for the more complete endowment and maintenance of

"Life is not for work alone, but to be enjoyed; the great thing to learn is how to enjoy your work and how to help others to enjoy theirs."—Pastor Wagner.

the Agricultural Experiment Stations." Of this appropriation $5,000 was received in 1907, and $2,000 additional will be paid each year until the annual appropriation amounts to $15,000. This appropriation can only be used for "paying the necessary expenses of conducting original researches or experiments bearing directly on the agricultural industry of the United States." The provisions of this act are more binding than those of the Hatch act. The money must be used for experimentation and research alone; even the expense of printing the results of such research must be paid from some other fund. None of this fund may be spent for buildings or rentals, library, demonstrational, or administrative work.

Agricultural College

The Nelson fund is intended to be additional to the Morrill fund and may be expended for similar purposes. By this appropriation the College received $5,000 in 1908, and will receive $5,000 additional each year until the amount reaches $25,000.

The theory of the federal government in accordance with which these appropriations have been made, is that the State or Territory must provide the buildings and grounds and keep them in repair, and must also provide for all the general administrative expenses of the college, and that the federal appropriations are to be used only for the purposes of paying teachers and supplying the necessary books and apparatus for teaching the specific subjects mentioned in the acts, and for carrying on experimental and research work as prescribed by the acts. The interpretation of the meaning of the acts is vested in the authorities at Washington. *Practically none of the funds may be used for building or repairs, nor for ordinary running expenses, such as salaries of administrative officers—as president, clerk, librarian, etc.,—equipment of the library, and ordinary furniture, stationery, printing, etc., nor for teaching any subject not expressly mentioned in the words of the acts.*

Endowment

By an Act of Congress, approved June 21, 1898, this College was given 100,000 acres of public land, the proceeds of which are to form a permanent endowment fund. This land has all be located. a small portion has been leased. and the remainder will be either leased or sold as soon as possible. The institution is now receiving a small income from this source.

Requirements for Admission

CANDIDATES for admission to the *Freshman* Class in any of the courses offered by this institution must present evidence of having received credit for the number of units of high school work as indicated in the table below. A unit consists of the work done in any subject having five periods of recitation per week throughout a school year of not less than thirty-six weeks. To receive credit a passing grade must have been received on this amount of work. The table shows the total number of units necessary for admission in each course and also indicates the number of units required in certain subjects. The total number of units in required subjects is always less than the whole number of units required for entrance; the remaining number of units may be credited from any of the other high school subjects taught. Certificates from the various high schools of the Territory or other high schools of equal rank, showing that students have creditably passed the work of any high school subject will be accepted in lieu of an examination and due credit will be given. Students will be admitted "conditioned" in two subjects with the understanding that these conditions shall be removed by the end of the *Freshman* year.

> *"The men who have achieved success are the men who have worked, read, thought more than was absolutely necessary; who have not been content with knowledge sufficient for the present need, but have sought additional knowledge and stowed it away for the emergency reserve. It is the superfluous labor that equips a man for everything that counts most in life."*
>
> *—Cushman K. Davis.*

Requirements for Admission

COURSE	Agricultural Course	Engineering Courses	Household Economics	General Course
	NUMBER OF UNITS REQUIRED			
Total Number of Units	6.4	9	12	12
ENGLISH	2	2	2.5	2.5
Comp. and Rhet.				
Adv. Gram.				
Am. Lit.				
Engl. Lit.				
MATHEMATICS	2	3	3	3
Adv. Arith.				
Algebra				
Pl. Geom.				
Sol. Geom.				
Pl. Trig.				
SCIENCE	1	1	2	2
Physiol.				
Physics	(Physics Preferred)	(Physics Preferred)		
Phys. Geog.				
Botany				
Zool.				
Chem.				
Agriculture				
Horticulture				
Shop Work				
LANGUAGE			2	2
Greek				
Latin				
German				
French				
Spanish				
MISCELLANEOUS				
History				
Civics				
Psychology				
Drawing				
Music				
Bookkeeping				

"Give the best persistently a chance at you."
—*Henry Churchill King.*

"If education cannot be identified with mere instruction, what is it? What does the term mean? I answer it must mean a gradual adjustment to the spiritual possession of the race. Those possessions may be variously classified, but they certainly are at least five-fold. The child is entitled to his scientific inheritance, to his literary inheritance, to his aesthetic inheritance, to his institutional inheritance, and to his religious inheritance. Without them he cannot become a truly educated or a cultivated man."—Nicholas Murray Butler.

Courses of Study.

"I see nowhere, in either ancient or modern times, a people whose youths have been trained as our Americans should be trained. Neither Greece nor Rome with their pinnacles of culture resting on the barbarous foundation of human slavery, nor the blooded aristocracies of modern times, can teach us how to educate, train and adorn an American citizen. We must not expect all our students to rule, nor yet all to be ruled; to direct, nor yet to be directed; to employ, nor to be employed. They must be capable of all these things. No narrow selfish aim, no prejudice of caste, no false claim of high culture which scorns service, must mislead the growing, expanding minds. Give them a generous, symmetrical training; open wide the avenues to usefulness, to happiness, to power, and this age of scientific progress and material wealth shall be also an age of high intellectual and social achievement."—Calvin M. Woodward.

A Course in Household Economics

FRESHMAN YEAR

First Semester		Second Semester	
Composition—Literature (Engl. 1)*	5	Composition—Literature (Engl. 2)	4
Elem. Bibliography (Engl. 3)	1	Elem. Pub. Speaking (Engl. 5)	1
Elem. Pub. Speaking (Engl. 4)	1	Zoology (Biol. 2)	2+2P
Solid Geom. (Math. 1)	3	Organic Chemistry (Chem. 4)	2
Plane Trig. (Math. 3)	2	General Chemistry (Chem. 2)	3
General Chemistry (Chem. 1)	2	General Physics (Phys. 2)	3
General Physics (Phys. 1)	3	Sewing (H. E. 2)	4P
Sewing (H. E. 1)	6P	Olericulture (Hort. 8)	1+2P
Bacteriology (Biol. 1)	3		

SOPHOMORE YEAR

English Literature (Engl. 6)	4	English Literature (Engl. 7)	4
Public Speaking (Engl. 8)	1	Public Speaking (Engl. 9)	1
Qual. Analysis (Chem. 3)	4P	Quantitative Analysis (Chem. 5)	4P
Physical Lab. (Phys. 5)	4P	Adv. Physiology (Biol. 4)	3
Zoological Lab. (Biol. 3)	6P	German or Spanish (G. 2 or S. 2)	5
German or Spanish (G. 1 or S. 1)	5	Domestic Science (H. E. 5)	2+6P
Millinery (H. E. 3)	2P		
Home Decoration (H. E. 4)	2		

JUNIOR YEAR

Debating (Engl. 10)	2	Debating (Engl. 11)	1
Political Economy (P. E. 1)	3	Adv. Bibliography (Engl. 12)	1
Astronomy (Astron. 1)	4	Political Economy (P. E. 2)	3
German or Spanish (G. 3 or S. 3)	5	Astronomy (Astron. 2)	3
Domestic Science (H. E. 6)	2+6P	German or Spanish (G. 4 or S. 4)	5
Laundering (H. E. 7)	1	Dietetics (H. E. 8)	2+6P
		Textiles (H. E. 9)	2

SENIOR YEAR

Adv. Rhetoric (Engl. 13)	2	Adv. Rhetoric (Engl. 14)	1
Geology (Biol. 7)	5	Historical Geology (Biol. 8)	3
Psychology (Psych. 1)	3	Psychology (Psych. 2)	2
Adv. Amer. History (Hist. 2)	3	Thesis	5
Dietary Studies (H. E. 10)	3+4P	Household Sanitation (H. E. 12)	5
Home Nursing (H. E. 11)	2	Elective	3
Elective	2		

* The expression in parenthesis indicates where information concerning the subject may be found further over in the catalog: as, data concerning the work in Composition will be found under course number 1 in the English department. The figures tell the number of recitations per week in each subject.

NOTICE—Military Tactics is required of all male students of the institution except Juniors, Seniors, and Graduate Students, three hours per week throughout the year. All young women except juniors, seniors and graduates, are required to take Physical Culture three days each week throughout the year.

Agricultural College

A Course in Agriculture

FRESHMAN YEAR

First Semester		Second Semester	
Plane Geometry (Math. B)	5	Plane Geometry (Math. A)	5
American Lit. (Engl. B.)	3	American Lit. (Engl. A.)	3
Expression (Engl. D.)	1	Expression (Engl. C.)	1
Botany (Biol. B.)	2+2P	Botany (Biol. A.)	1+4P
General History (Hist. B.)	3	English History (Hist. A.)	3
Types and Classes of Cattle, Sheep, and Goats (Zoot. 1)	4P	Types and Classes of Horses, Swine, and Poultry (Zoot. 2)	1+2P
Greenhouse Methods (Hort. 1)	1+2P	Horticulture (Hort. 2)	1+2P
Field Machinery (Ag. E. 1)	2P	Field Machinery (Ag. E. 2)	2P

SOPHOMORE YEAR

Composition—Literature (Engl. 1)	3	Composition—Literature (Engl. 2)	4
Elem. Bibliography (Engl. 3)	1	Elem. Pub. Speaking (Engl. 5)	1
Elem. Pub. Speaking (Engl. 4)	1	General Zoology (Biol. 2)	2+2P
Solid Geometry (Math. 1)	3	General Chemistry (Chem. 2)	3
General Chemistry (Chem. 1)	2	Farm Power (Ag. E. 3)	1+2P
General Physics (Phys. 1)	3	Olericulture (Hort. 3)	1+2P
Bacteriology (Biol. 1)	2	Farm Accounts (Agron. 4)	1+2P
Breeds of Cattle, Sheep, and Goats (Zoot. 3)	1+2P	Breeds of Horses, Swine and Poultry (Zoot. 4)	1+2P
Care and Management of Livestock (Zoot. 5)	2	Horse-shoeing (Zoot. 7)	1
Conform. and Soundness (Zoot. 6)	1		

JUNIOR YEAR

Qualitative Anal. (Chem. 4)	4P	Quantitative Analysis (Chem. 5)	4P
Physical Laboratory (Phys. 3)	4P	Soil Physics (S. P. 1)	1+4P
Surveying (C. E. 1)	6P	Plant Physiology (Biol. 5)	4P
Dairying (Dair. 1)	1+2P	Meteorology (S. P. 6)	1
Field Crops (Agron. 1)	1+2P	Tillage (Agron. 3)	2
Farm Management (Agron. 2)	2	Farm Architect (Ag. E. 4)	2P
Economic Entomology (Hort. 4)	2	Irrigation Practice (C. E. 6)	1+2P
Pomology (Hort. 5)	2+2P	Landscape Gard. (Hort. 6)	2
Veterinary Elements (Zoot. 8)	1+2P	Principles of Feeding Livestock (Zoot. 9)	4

SENIOR YEAR

Required of all groups

Debating (Engl. 10)	2	Debating (Engl. 11)	1
Political Economy (P. E. 1)	3	Adv. Bibliography (Engl. 12)	1
Agricultural Chem. (Chem. 6)	2	Political Economy (P. E. 2)	3
Seminar	4P	Agricultural Chem. (Chem. 7)	6P
		Thesis	3

Required in Animal Husbandry Group.

Adv. Dairying (Dair. 2)	1+2P	Animal Breeding (Zoot. 11)	3
Packinghouse Classes (Zoot. 10)	1	Elective	7
Elective	7		

Required in Agronomy Group.

Grain Judging (Agron. 5)	1+2P	Elective	9
Plant Diseases (Biol. 6)	1		
Plant Breeding (Hort. 7)	2		
Elective	5		

Required in Horticultural Group.

Plant Diseases (Biol. 6)	1	Viticulture, etc. (Hort. 9)	1+2P
Plant Breeding (Hort. 7)	2	Elective	7
Forestry (Hort. 8)	2		
Elective	5		

A Course in Mechanical Engineering

FRESHMAN YEAR

First Semester		Second Semester	
Composition—Literature (Engl. 1)	3	Composition—Literature (Engl. 2)	3
Elem. Bibliography (Engl. 3)	1	Elem. Pub. Speaking (Engl. 2)	1
Elem. Pub. Speaking (Engl. 4)	1	Higher Algebra (Math. 4)	3
Solid Geometry (Math. 1)	3	Trigonometry (Math. 3)	2
Trigonometry (Math. 2)	2	General Chemistry (Chem. 2)	3
General Chemistry (Chem. 1)	2	General Physics (Phys. 2)	3
General Physics (Phys. 1)	3	Woodwork and Forg. (M. E. 18b)	6P
Woodwork and Forg. (M. E. 18a)	6P	Drawing (M. E. 2)	4P
Drawing (M. E. 1)	4P		

SOPHOMORE YEAR

English Literature (Engl. 6)	4	English Literature (Engl. 7)	4
Public Speaking (Engl. 8)	1	Public Speaking (Engl. 9)	1
Descriptive Geometry (M. E. 6)	2	Physical Laboratory (Phys. 4)	4P
Qualitative Anal. (Chem. 3)	4P	Quantitative Anal. (Chem. 5)	4P
Physical Laboratory (Phys. 3)	4P	Differential Calc. (Math. 6)	3
Surveying (C. E. 1)	6P	Drawing (M. E. 3)	4P
Wood Turning (M. E. 22)	4P	Patternmaking and Foundry (M. E. 19)	6P
Analytic Geometry (Math. 5)	3	Elective	3

JUNIOR YEAR

Elem. Mechanics (M. E. 7)	3	Steam Eng. and Boilers (M. E. 10)	3
Debating (Engl. 10)	1	Debating (Engl. 11)	1
Political Economy (P. E. 1)	3	Adv. Bibliography (Engl. 12)	1
Integral Calculus (Math. 7)	3	Political Economy (P. E. 2)	3
Mineralogy (Chem. 11)	4P	Graphic Statics (M. E. 9)	2
Bench Work in Iron (M. E. 20)	4P	Machine Design (M. E. 4)	8P
Mechan. and Elect. Const. (M. E. 23)	[illegible]	Applied Mechanics (M. E. 11)	3
Mechanism (M. E. 8)	3	Metallurgy of Iron and Steel (M. E. 12)	1
		Machine Shop (M. E. 21)	4P

SENIOR YEAR

Engineer Structures (M. E. 15)	3	Power Plants (M. E. 13)	3
Geology (Biol. 7)	3	Mech. Engineer. Lab. (M. E. 17)	2P
Hydraulics (C. E. 7)	3	Contracts and Specif. (M. E. 24)	1
Elem. of Electrical Engineering (E. E. 30)	3	Gas and Oil Engines (M. E. 25)	1
Applied Mechanics (M. E. 12)	3	Thermodynamics (M. E. 14)	2
Machine Design (M. E. 5)	4P	Astronomy (Astr. 2)	2
Engineer. Lab. (M. E. 16)	4P	Thesis (M. E. —)	6
Seminar (M. E. 27a)	1	Seminar (M. E. 27b)	1
		Elective	2

A Course in Electrical Engineering

FRESHMAN YEAR

First Semester

Composition—Literature (Engl. 1)	3
Elem. Bibliography (Engl. 3)	1
Elem. Pub. Speaking (Engl. 4)	1
Solid Geometry (Math. 1)	3
Trigonometry (Math. 2)	2
General Chemistry (Chem. 1)	2
General Physics (Phys. 1)	3
Woodwork and Forging (M. E. 18a)	6P
Drawing (M. E. 1)	4P

Second Semester

Composition—Literature (Engl. 2)	4
Elem. Pub. Speaking (Engl. 5)	1
Higher Algebra (Math. 4)	3
Trigonometry (Math. 3)	2
General Chemistry (Chem. 2)	3
General Physics (Phys. 2)	3
Woodwork and Forging (M. E. 18b)	6P
Drawing (M. E. 2)	4P

SOPHOMORE YEAR

English Literature (Engl. 6)	4
Public Speaking (Engl. 8)	1
Descriptive Geom. (M. E. 6)	3
Qualitative Lab. (Chem. 3)	4P
Physical Laboratory (Phys. 3)	4P
Surveying (C. E. 1)	6P
Wood Turning (M. E. 22)	4P
Analytic Geometry (Math. 5)	3

English Literature (Engl. 7)	4
Public Speaking (Engl. 9)	1
Quantitative Anal. (Chem. 5)	4P
Physical Laboratory (Phys. 4)	4P
Differential Calculus (Math. 6)	3
Drawing (M. E. 3)	4P
Patternmaking and Foundry (M. E. 19)	6P
Elective	3

JUNIOR YEAR

Debating (Engl. 10)	1
Elem. of Electrical Engineering (E. E. 30)	3
Political Economy (P. E. 1)	3
Integral Calculus (Math. 7)	3
Mineralogy (Chem. 13)	6P
Elem. Mechnics (M. E. 7)	3
Bench Work in Iron (M. E. 20)	4P
Mechan. and Elect. Construction (M. E. 23)	2P

Debating (Engl. 11)	1
Adv. Bibliography (Engl. 12)	1
Steam Eng. and Boilers (M. E. 10)	3
Political Economy (P. E. 2)	3
Graphic Statics (M. E. 9)	2
Machine Design (M. E. 4)	8P
Applied Mechanics (M. E. 11)	3
Metallurgy of Iron and Steel (M. E. 25)	1
Machine Shop (M. E. 21)	4P

SENIOR YEAR

Dynamo Electric Machinery (E. E. 31)	3
Dynamo Design (E. E. 33)	4P
Geology (Biol. 7)	3
Engin. Structures (M. E. 15)	3
Hydraulics (C. E. 7)	3
Applied Mechanics (M. E. 12)	3
Engineer. Lab. (M. E. 16)	4P
Seminar (M. E. 27a)	1

Alternating Currents (E. E. 32)	3
Astronomy (Astron. 2)	3
Power Plants (M. E. 13)	3
Electr. Engin. Lab. (E. E. 35)	2P
Contracts and Specif. (M. E. 24)	1
Thermodynamics (M. E. 14)	3
Electr. Power Trans. (E. E. 34)	1
Seminar (M. E. 27b)	1
Thesis (E. E.)	6

A Course in Civil Engineering

FRESHMAN YEAR

First Semester		Second Semester	
Composition—Literature (Engl. 1)	3	Composition—Literature (Engl. 2)	4
Elem. Bibliography (Engl. 3)	1	Elem. Pub. Speaking (Engl. 5)	1
Elem. Pub. Speaking (Engl. 4)	1	Higher Algebra (Math. 4)	3
Solid Geometry (Math. 1)	3	Trigonometry (Math. 3)	2
Trigonometry (Math. 2)	2	General Chemistry (Chem. 2)	3
General Chemistry (Chem. 1)	2	General Physics (Phys. 2)	4
General Physics (Phys. 1)	3	Woodwork and Forging (M. E. 18b)	6P
Woodwork and Forging (M. E. 18a)	6P	Drawing (M. E. 2)	4P
Drawing (M. E. 1)	4P		

SOPHOMORE YEAR

English Literature (Engl. 6)	4	English Literature (Engl. 7)	4
Public Speaking (Engl. 8)	1	Public Speaking (Engl. 9)	1
Descriptive Geometry (M. E. 6)	3	Quantitative Analysis (Chem. 5)	4P
Qualitative Anal. (Chem. 3)	4P	Physical Laboratory (Phys. 4)	4P
Physical Laboratory (Phys. 3)	4P	Differential Calculus (Math. 6)	3
Surveying (C. E. 1)	6P	Drawing (M. E. 3)	4P
Wood Turning (M. E. 22)	4P	Topog. and City Surveying (C. E. 2)	5
Analytic Geometry (Math. 5)	3	Elective	1

JUNIOR YEAR

Debating (Engl. 10)	2	Debating (Engl. 11)	1
Political Economy (P. E. 1)	3	Adv. Bibliography (Engl. 12)	1
Mineralogy (Chem. 13)	6P	Political Economy (P. E. 2)	3
Elem. Mechanics (M. E. 7)	3	Graphic Statics (M. E. 9)	2
Ry. Surveying (C. E. 3)	1+4P	Applied Mechanics (M. E. 11)	3
Mechanism (M. E. 8)	3	Engineering Office Work (C. E. 5)	8P
Integral Calculus (Math. 7)	3	Metallurgy of Iron and Steel (M. E. 25)	1
		Ry. Surveying (C. E. 4)	1+8P

SENIOR YEAR

Geology (Biol. 7)	3	Astronomy (Astr. 2)	3
Engin. Structures (M. E. 15)	3	Irrigation Engineering (C. E. 9)	3
Hydraulics (C. E. 7)	3	Irrigation Field Work (C. E. 10)	4P
Electrical Engineer (E. E. 30)	3	Bridge Design (C. E. 11)	4P
Applied Mechanics (M. E. 12)	3	Thesis (C. E.)	6
Drawing and Designing (C. E. 8)	4P	Seminar (M. E. 27b)	1
Engineer. Laboratory (M. E. 16)	4P	Elective	2
Seminar (M. E. 27a)	1		

A General Course

FRESHMAN YEAR

First Semester		Second Semester	
Composition—Literature (Engl. 1)	3	Composition—Literature (Engl. 2)	4
Elem. Bibliography (Engl. 3)	1	Elem. Pub. Speaking (Engl. 5)	1
Elem. Pub. Speaking (Engl. 4)	1	Higher Algebra (Math. 4)	3
Solid Geom. (Math. 1)	3	Trigonometry (Math. 3)	2
Plane Trig. (Math. 2)	2	General Chemistry (Chem. 2)	3
General Chem. (Chem. 1)	2	General Physics (Phys. 2)	3
General Physics (Phys. 1)	3	General Zoology (Biol. 2)	2+2P
General History (Hist. 1)	3	Organic Chemistry (Chem. 4)	2
Bacteriology (Biol. 1)	2		

SOPHOMORE YEAR

English Literature (Engl. 6)	4	English Literature (Engl. 7)	4
Public Speaking (Engl. 8)	1	Public Speaking (Engl. 9)	1
Qual. Analysis (Chem. 3)	4P	Quantitative Anal. (Chem. 5)	4P
Physical Lab. (Phys. 3)	4P	Physical Lab. (Phys. 4)	4P
Surveying (C. E. 1)	2	Adv. Physiology (Biol. 4)	3
Zool. Lab. (Biol. 3)	6P	German or Spanish (G. 2 or S. 2)	5
German or Spanish (G. 1 or S. 1)	5	Elective	2

JUNIOR YEAR

Debating (Engl. 10)	2	Debating (Engl. 11)	1
Political Economy (P. E. 1)	3	Adv. Bibliography (Engl. 12)	1
Astronomy (Astron. 1)	4	Political Economy (P. E. 2)	3
Mineralogy (Chem. 13)	6P	Astronomy (Astron. 2)	3
German or Spanish (G. 3 or S. 3)	5	German or Spanish (G. 4 or S. 4)	5
Elective	3	Elective	7

SENIOR YEAR

Adv. Rhetoric (Engl. 13)	2	Adv. Rhetoric (Engl. 14)	2
Geology (Biol. 7)	3	Historical Geology (Biol. 8)	3
Psychology (Psych. 1)	3	Psychology (Psych. 2)	2
Adv. Amer. History (Hist. 2)	3	Thesis	5
Elective	9	Elective	9

"Science is, I believe, nothing but trained and organized common sense, differing from the latter only as a veteran differs from a raw recruit."—Huxley.

Winter School of Agriculture and Household Economics

Agricultural College

FOUR MONTHS

FIRST TERM, Beginning October 26, 1908, ending December 19, 1908.
SECOND TERM, Beginning January 4, 1909, ending February 26, 1909.

FIRST YEAR

First Term

Arithmetic	5
Grammar	5
Spelling	5
Writing	5
Botany	1
Poultry	2
Elementary Agronomy (M)	2
Farm Machinery (M)	2
Drawing	1P
Cooking (W)	6P
Sewing (W)	6P
Botany	2P
Farm Wood Work (M)	2P
Elementary Agronomy (M)	2P

Second Term

Arithmetic	5
Grammar	5
Physiology	5
Floriculture (W)	2
Farm Machinery (M)	2
Breeds and Types of Livestock (M)	2
Hygiene (W)	1
Dairying (Home Dairy)	2
Gardening	1
Home Decoration (W)	3P
Floriculture (W)	2P
Cooking (W)	6P
Sewing (W)	6P
Farm Wood Work (M)	2P
Stock Judging (M)	4P
Dairying (Home Dairy)	2P
Gardening	2P

SECOND YEAR

First Term

Grammar	5
Commercial Arithmetic	5
Orcharding	2
Landscape Gardening	2
Entomology	2
Cereal Crops (M)	2
Soils (M)	1
Cooking (W)	6P
Sewing (W)	6P
Farm Mechanics (M)	2P
Soils (M)	2P
Drawing applied (M)	2P

Second Term

History	5
Chemistry	2
Stock Feeding (M)	2
Veterinary Eleemnts (M)	2
Bookkeeping and Farm Accounts (M)	2
Buildings, Roads, and Fences (M)	2
Care and Management of Livestock (M)	2
Range Grasses (M)	2
Household Sanitation (W)	5
Home Nursing (W)	2
Cooking (W)	6P
Sewing (W)	6P
Blacksmithing (M)	2P
Grain Judging (M)	3P
Farm Mechanics (M)	2P

NOTE—Courses marked M are for men and those marked W are for women. All courses not thus marked are for both men and women.

A Course in English Stenography

First Semester		Second Semester	
Stenography (Sten. 1)	10	Stenography (Sten. 2)	10
Typewriting (Type. 1)	5	Typewriting (Type. 2)	5
English (Engl. 1. 3. 4)	5	English (Engl. 2. 5)	5
Spelling	3	Spelling	3

A Course in Spanish Stenography

First Semester		Second Semester	
English (Engl. 6, 8)	5	English (Engl. 7, 9)	5
Special Work (Sten.)	2	Spanish Stenog. (Sten. 6)	5
Spanish Stenog (Sten 5)	3	Adv. Stenography (Sten. 4)	5
Adv. Stenography (Sten. 3)	5	Spanish (Sp. Elec.)	5
Spanish (Sp. Elec.)	5	Typewriting (Type 4)	5
Typewriting (Type. 3)	5		

A Course in Commerce

FIRST YEAR

First Semester		Second Semester	
English (Engl. D, B)	4	English (Engl. C, A)	4
Spanish (Span. 1)	5	Spanish (Span. 2)	5
Spelling (Com.)	3	Spelling (Com.)	3
Commercial Geography (Com.)	5	Commercial Law (Com.)	5
Bookkeeping 1 (Com.)	2	Bookkeeping 2 (Com.)	2
Economics (Com.)	5		

SECOND YEAR

Bookkeeping 3 (Com.)	3	Bookkeeping 4 (Com.)	10
Commercial Arithmetic (Com.)	3	English (Engl. 2, 5)	5
English (Engl. 1, 3, 4)	5	Spanish (Span. 4)	5
Spanish (Span. 3)	5	History of Finance (Com.)	3
Commercial Letter Writing	2		
Civics (Com.)	5		

The Preparatory Course

FIRST YEAR

First Semester		Second Semester	
Arithmetic (Math. H)	5	Arithmetic (Math. G)	5
English Grammar (Engl. N)	5	English Grammar (Engl. M)	5
Orthog. and Reading (Engl. O)	5	U. S. History	5
Geography	5	Music and Penmanship	5
Theory and Practice (Prep. D)	5	Special Methods (Prep. C)	5
Agriculture or	2	Agriculture or	2
Cooking (H. E. F)	2	Hygiene (H. E. E)	2

SECOND YEAR

Elem. Algebra (Math. F)	5	Adv. Arithmetic (Math. E)	5
Elem. Expression (Engl. L)	1	Elem. Expression (Engl. K)	1
Elem. Engl. Comp. (Engl. J)	4	Elem. Engl. Comp. (Engl. I)	4
Physiology (Biol. D)	5	Physiography (Biol. C)	5
Music and Drawing	1	Civics	5
School Management (Prep. B)	5	Elem. Psychology (Prep. A)	5
Agriculture or	2	Agriculture or	2
Cooking (H. E. D)	2	Model Book (H. E. C)	4P

THIRD YEAR

Algebra (Math. D)	5	Algebra (Math. C)	5
Elem. Expression (Engl. H)	1	Elem. Expression (Engl. G)	1
Adv. Grammar, etc. (Engl. F)	4	Adv. Grammar, etc. (Engl. E)	4
Elem. Physics (Phys. B)	5	Elem. Physics (Phys. A)	5
Bookkeeping or (Com.)	5	Bookkeeping or (Com.)	5
Plain Sewing (H. E. B)	3	Plain Sewing (H. E. A)	3
Wood Work and (M. E.)	4P	Iron Work and (M. E.)	4P
Elem. Agronomy or (Agron. A)	.2	Zootechny and (Zoot. A)	2P
Elements of Latin (Lat. D)	5	Horticulture or (Hort. A)	1+2P
		Elements of Latin (Lat. C)	5

FOURTH YEAR

Plane Geometry (Math. B)	5	Plane Geometry (Math. A)	5
Expression (Engl. D)	1	Expression (Engl. C)	1
American Lit. (Engl. B)	3	American Lit. (Engl. A)	3
Botany* (Biol. B)	1+4P	Botany* (Biol. A)	1+4P
General History (Hist. B)	3	General History (Hist. A)	3
Engineering or	5	Engineering or	5
Agriculture or	5	Agriculture or	5
Latin Readings (Lat. B)	5	Latin Readings (Lat. A)	5

* Not required of Engineering Students.

"Children are to be won to follow liberal studies by exhortation and rational motives, and on no account to be forced thereto by whipping."—Plutarch.

A Two Year Mechanical and Electrical Certificate Course

FIRST YEAR

First Semester

Course	Hours
Mechanical Drawing (M. E. 1)	4P
Woodwork and Forging (M. E. 18a)	6P
English	5
Mathematics	5
Elective	2
Elementary Physics (Phys. B)	3

Second Semester

Course	Hours
Mechanical Drawing (M. E. 2)	4P
Woodwork and Forging (M. E. 18b)	6P
English	5
Mathematics	5
Elective	2
Elementary Physics (Phys. A)	3

SECOND YEAR

Course	Hours
One of: Machine Shop (M.E. 20) . . 4P Mechanical and Electrical Construction (M. E. 23) . 2 Carpentry (M. E. 18) . . . . 4P Woodturning (M. E. 22) . . 4P	2
Mechanical Drawing (M. E. 3)	4P
English	5
Mathematics	5
Elements of Elec. Engineering (E. E. 30)	3

Course	Hours
One of: Patternmaking and Foundry (M. E. 19) . . . . . . 6P Machine Shop (M. E. 20) . 6P	3
Machine Design (M. E. 4)	8P
English	5
Mathematics	5
Engine Practice (M. E. 28)	2P
Steam Engines and Boilers (M. E. 10)	3

Electives

First Semester

Course	Hours
Technical English (Engl. 15)	2
Adv. Pub. Speaking (Engl. 17)	
Adv. Chemistry (Chem. 9)	6P
Assaying (Chem. 14)	6
Adv. Physics (Phys. 5)	6P
Adv. Soil Physics (S. P. 2, 4)	6P
Adv. Botany (Biol. Elect.)	6P
Adv. Zoology (Biol. Elect.)	6P
Household Economics	4P
Commercial Spanish	5
Special Crops (Agron. 6)	1+2P
Comparative Agricult. (Agron. 8)	1
Farm Machinery (Ag. E.5)	4P
Adv. Stock Judging (Zoot. 13)	2P
Fitting Livestock (Zoot. 15)	2P
Packinghouse Byproducts (Zoot. 16)	1
Anatomy (Zoot. 17)	1+2P
Systematic Pomology (Hort. 10)	2P
Systematic Olericulture (Hort. 11)	2P
Preserving Fruits, etc. (Hort 12.)	2P
Floriculture (Hort. 13)	1
Art Needlework (H. E. 13)	
Music (Mus.)	5P

Second Semester

Course	Hours
Technical English (Engl. 16)	2
Adv. Pub. Speaking (Engl. 18)	
Adv. Chemistry (Chem. 10)	6P
Assaying (Chem. 15)	6
Adv. Physics (Phys. 6)	6P
Adv. Soil Physics (S. P. 3, 5)	6P
Adv. Botany (Biol. Elect.)	6P
Adv. Zoology (Biol. Elect.)	6P
Household Economics	4P
Commercial Spanish	5
Field Experiments (Agron 7)	4P
Farmers' Institute Management (Agron. 9)	1
Cement Construction (Ag. E 6)	1+2P
Research in Ag. Eng. (Ag. E. 7)	4P
Adv. Stock Judging (Zoot. 14)	2P
Sanitary Science (Zoot. 18)	1
Obstetrics (Zoot. 19)	1+2P
Invest. with Poultry (Zoot. 20)	2P
Adv. Forestry (Hort. 14)	1
Phenolog. Field Work (Hort. 15)	2P
Tropical Fruits (Hort. 16)	1
Hort. Literature (Hort. 17)	1
Special Dressmaking (H. E. 14)	
Music (Mus.)	5P
Chafing-dish Cookery (H. E. 15)	2P

NOTE ON ELECTIVE STUDIES.—The figures following the Elective Studies indicate the minimum amount of time that may be devoted to them. Whenever the other work of the student and of the instructor do not prevent, a greater amount of time may be given to the subject.

The elective studies are not assigned to any particular year but may be taken whenever the student may be prepared for them and has the necessary time at his disposal, subject always to the approval of the faculty.

In addition to the courses expressly designated as elective, any study pursued in the College, and not prescribed in the course of study that is being followed by the student in question may be elected by him. A student in the General Course, for example, may elect a study prescribed for Agricultural students; or to give a more specific example, a Senior in the Agricultural Course (who has three hours free for an elective in the second semester) may elect Physiology, which is given in the Sophomore year of the General Course, provided it is given at an hour when he is free from other engagements

The Elective System

BY CONSULTING the courses of study offered by this institution (pp. 19 to 28) it will be seen that there are six collegiate courses outlined, five of which are of a more or less specialized character. Each of these latter is designed to fit the student for some special line of work, which he has decided to follow. Besides their strictly technical subjects, they contain all those general educational and cultural subjects, considered of most value to technical students, which it was possible to introduce in the prescribed time. This arrangement allows very little selection of work upon the part of the student, except that made when entering his particular course. Engineers of all kinds have no choice of work. Agricultural men may elect a second year of language and a small number of other cultural subjects or more technical work, if they so desire. The course in Household Economics allows a certain amount of election which may be turned either to cultural work or to further technical work in that department.

The general course, however, is designed to include, as required work, those subjects which are necessary in any general course, and at the same time allow the student to select a large proportion of his work. The facilities offered and the time allowed are so arranged that a student may specialize in language (Spanish, Latin, or English), literature (English or American), chemistry, physics, or biology, or may take technical training in agriculture, horticulture, engineering, or household economics. With this arrangements a student, by entering the general course, may take any special course of his choosing, which the institution is able to furnish.

⁂

Special Courses

Students of mature years, who cannot remain long enough to take a full collegiate course, may be allowed to take special courses. The faculty reserves the right to refuse such requests, or to order such modifications as may seem best for the student and the college. No degrees are granted for special work, but those who perform such work in a satisfactory manner will receive certificates. In addition to the above statements, which refer to the selection of work from the collegiate courses, it is necessary to state that special courses are offered in instrumental and vocal music as well as various short courses given in detail in another place.

THE degree of *Bachelor of Science* (B. S.) is conferred upon students who satisfactorily complete the work prescribed in any of the collegiate courses of study, but in order to receive the B. S. degree students are required to spend at least one year immediately before graduation in this institution.

Degrees

The degree of *Master of Science* (M. S.) is conferred upon students of this institution who, after taking the degree of B. S., pursue for at least one year in residence, or for two years as non-resident students, a course of study approved by the faculty, pass an examination upon the same, and present a satisfactory thesis. Students of other institutions of similar character and equal rank, holding the bachelor's degree and desiring to take the M. S. degree from this institution, are subject to the same requirements as above, except that they must spend the year next preceding the granting of the degree in resident study.

Regarding graduate courses of study, the following rules must be observed:

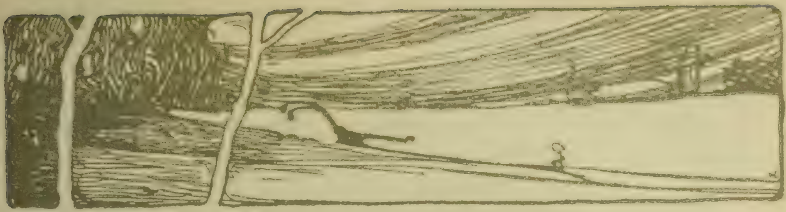
1. The course shall consist of work equivalent to twenty lecture hours per week, and shall be distributed between one major and two minors.
2. The major, covering ten hours, shall be advanced work not offered to undergraduates, in line with the candidate's principal work leading to the B. S. degree, and at least half of it shall be devoted to research whose results shall be embodied in a thesis.
3. The minors, covering ten hours, may be chosen from lines distinct from that of the major, and may include work offered to undergraduates of the Junior and Senior years.
4. The candidate must pass a satisfactory examination upon his work and present his thesis for final approval before the beginning of the Senior vacation.

In bachelor's diplomas, the course completed by the student may, at his option, be indicated parenthetically.

In master's diplomas, at the discretion of the faculty, the degrees of M. S. A. (Master of Scientific Agriculture) and M. E. (Mechanical Engineer) may be substituted for M. S. in the case of students of Agriculture and Mechanical Engineering.

Departments of Instruction

"I come now to the pleasures of husbandry, in which I vastly delight. They are not interrupted by old age, and they seem to me to be pursuits in which a wise man's life should be spent. The earth does not rebel against authority; it never gives back but with usury what it receives. In my opinion there can be no happier life."—Cicero.



Department of Agriculture

Professor Foster **Mr. Hummel**
Mr. Simpson **Mr. Durham**

THE course in agriculture is designed to combine, in their proper proportions, that amount of theoretical study with laboratory and field training which will produce a well rounded, practical, resourceful man. To this end the course is strong in botany and chemistry, which form important aids to applied agriculture, and a certain number of other subjects of general educational value are included. To all this is added a large amount of practical work under competent instruction and with a modern equipment. A certain amount of choice is allowed in the selection of the studies of the last year. The instruction is given by text-books, lectures, laboratory practice, and field observation. This course fits young men for the various agricultural pursuits; farming, stock raising, and dairying. It also prepares them for professional positions in agricultural colleges, as well as for scientific aids in the United States Department of Agriculture. The demand for trained men in these latter positions has been so great, that in recent years, almost all agricultural graduates have been called into college or experiment station work.

* * *

Agronomy

AGRONOMY is the science of the field and its crops. The object of the work is to acquaint the student with crop production;—the nature of the various crops, the conditions governing their successful and economic production, the improvement of soils, the preservation of fertility, and the application of economic business methods to farm practice. The course combines both theory and practice. The different phases of crop production are studied in the

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class room and the practical work aims to fix the principles learned and give them a practical application.

A. *Elementary Agronomy.* Introductory principles. The work is general and of a popular nature. Principles of Agriculture by Bailey is used as a text, supplemented by lectures.

Required of all Third Year Preparatory students who do not elect Latin, first semester, 2 hours. Credit for college entrance .2 unit.

1. *Field Crops.* This course includes the study of the various crops of the farm. Selection, adaptation, uses, storage, planting and cultivation, varieties and their improvement. Hunt's Cereals in America is used at a text.

Required of Agricultural Juniors, first semester, 2 hours plus 2 hours practice. Credit .3 unit.

2. *Farm Management.* The work of this course consists of a study of some of the problems confronting a farmer and plans for overcoming the difficulties involved in the development and management of different classes of farms. It treats of the location and grouping of farm buildings; utilization of the different soils and exposures; economizing of time and labor in reaching all parts of the farm; the laying out of the farm that will best provide for rotation and maintenance of soil fertility; provision for the necessary live stock, which includes a proper division between tilled and untilled land, meadow, pasture, etc.; and the development of the landscape effects of the entire farm. It correlates the study of soil management, crop management, and business management of the farm.

Required of Agricultural Juniors, first semester, 2 hours. Credit .1 unit.

3. *Tillage.* Origin and classification of soils; methods of tillage; preservation, application, and value of manures and commercial fertilizers; the effect of different crops upon the fertility of the soil and upon succeeding crops; different systems of rotation and the effect upon the productiveness of the soil produced by various methods of soil management under New Mexico conditions of climate. The Fertility of the Land, by Roberts, is used as a text, supplemented by lectures.

Required of Agricultural Juniors, second semester, 2 hours. Credit .2 unit.

4. ***Farm Accounts.*** The day has arrived when the farmer as well as any other business man must know his assets and liabilities. He must know whether he is losing or gaining money as a result of his operations. Each crop and herd or individual of that herd must be made to answer searching questions as to profit or loss. Probably no one factor in these times of specialization has so great an influence for success as business methods. Realizing the importance of this subject to every agriculturist a brief course in farm accounts is offered which includes the books to be used; the definition of general terms; feed records; land, crop, and household records; etc. Steiner's Book of Farm Accounts is used as a text.

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Required of Agricultural Sophomores, second semester, 2 hours. Credit .2 unit.

5. ***Grain Judging.*** This course includes judging of wheat, oats, barley, corn, etc., and a study of market grades of farm crops. It treats of shrinkage of grain and care of stored crops to prevent injury and loss. Score card practice with cereals.

Required of Agronomy Seniors, first semester, 1 hour plus 2 hours practice. Credit .2 unit

6. ***Special Crops.*** A special study of farm crops. Discussion of rotation or succession of crops with special reference to systematic farming and economic distribution of labor, methods of culture, cost of production, and consumption of products.

Elective, Senior year, first semester, 1 hour plus 2 hours practice. Credit .2 unit.

7. ***Field Experiments.*** Special work by students conducted in the field. This work consists of testing the varieties of grain and other farm crops; methods of planting and seeding; culture and practice in treating oats and wheat for smut. Other practical experiments may be arranged for with the instructor.

Elective, Senior year, second semester and summer vacation. 4 hours practice.
Credit 2 unit.

8. ***Comparative Agriculture.*** Reasons for the differences in the agriculture of different times, peoples, and countries; and why it is that the agriculture of a region or of a farm is a definite and individual problem; together with the need of harmonizing agricultural practices

> *"The progressive modern farm has entered into the commercial life of today. It recognizes the law of advantage in production. This change means that farming becomes a business rather than an employment. It means the adoption of business methods in every phase of activity.—F. W. Card.*

with natural conditions as well as with scientific truths. Soil, climate, race, custom, etc., are considered with respect to their influence on agricultural practices and the best methods of procedure under different conditions are discussed.

Elective, Senior year, first semester, 1 hour. Credit .1 unit.

Farmers' Institute Management. This course is intended to set
forth the principles underlying the organization and conduct of Farmers'
9. institutes and Agricultural Associations. The Farmers' Institute
or Farmers' Union is considered in its relation to public education.
Suggestions are made as to methods of helpful service in institutes and
agricultural associations and parliamentary practice is given.

Elective, Senior year, second semester, 1 hour. Credit .1 unit.

* * *

Agricultural Engineering

AGRICULTURAL ENGINEERING is the science which treats of mechanical laws as applied to the machinery implements and operations of the farm. It includes such subjects as farm machinery, farm motors, road construction, rural architecture, etc.

Farm Machinery. The tools and machinery of the field as used in
tillage, seeding, harvesting, etc. The history of the development, de-
1, tails of construction, functions, methods of operation, and the care
2. of the various implements are studied. Special attention is given
to plows, harrows, seeders, drills, corn and potato planters, cultivators,
weeders, spraying machines, mowers, rakes, self-binders, potato diggers,
wagons, buggies, etc. Class and laboratory practice, including setting
up and testing machines, noting construction and elements necessary for
successful work.

Required of Agricultural Freshman, first and second semesters, 2 hours practice. Credit .2 unit.

Farm Power. This course includes a thorough study of horse pow-
ers, gas engines, hot air engines, traction engines, windmills, feed cutters
3. and grinders, and threshing machines,—their construction, opera-
tion, efficiency, durability, and care. Class work is supplemented by
practical work with the various motive powers in the laboratory.

Required of Agricultural Sophomores, second semester, 1 hour plus 2 hours practice. Credit .2 unit

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4. *Farm Architecture.* Includes work in the designing of the various farm buildings, their arrangement, construction, lighting, heating, ventilation, drainage, etc. Cost and durability of the various building materials are carefully considered and suggestions given as to contracts and specifications. The cost, construction, efficiency, and durability of the different kinds of fences are considered, as well as that of roads and walks. Class work and practice in the designing and drafting of buildings.

Required of Agricultural Juniors, second semester, 4 hours practice. Credit .2 unit.

5. *Farm Machinery.* Expert work in farm machinery, chiefly with harvesting machinery, gasoline and traction engines. This course is designed for students preparing themselves for demonstrating these machines in the field.

Elective, Senior year, first semester, 4 hours practice. Credit .2 unit.

6. *Cement Construction.* A study of the methods of construction and the various uses of cement on the farm.

Elective, Senior year, second semester, 1 hour plus 2 hours practice. Credit .2 unit.

7. *Research in Agricultural Engineering.* Includes special study and investigation along the various lines of agricultural engineering in which individual students are most interested, as sewerage, road construction, testing of various machines, etc. Requirements to be arranged with the instructor.

Elective, Senior year, second semester, 4 hours practice. Credit .2 unit.

* * *

Zootechny

INCREASED immigration into the Territory, development of new irrigation projects, and a generally awakened interest in agriculture are bringing the livestock industry of New Mexico forward at a rapid rate. The cattle, sheep, and goat interests are growing, and farm and range horses are being improved in size and quality. In view of the fact that the livestock industry is the leading industry of New Mexico and that its further development has wonderful possibilities, a strong course in animal husbandry has been planned with special reference to Territorial conditions. This course aims to meet the growing needs of the Territory. The subjects are pursued from a practical as well as a scientific standpoint, having in view the thorough equipment of young men for successful work in breeding, care and management of large herds.

Breeds and Types of Livestock. Elementary in character, with **A.** instruction in the use of the score card and in judging livestock.

Required of all male Third Year Preparatory students, who do not elect Latin, second semester, 2 hours practice. Credit for college entrance .1 unit.

Types and Classes of Livestock. This is a practical course in the comparative study of the animal form of the various market classes. **1, 2.** The score-card is used as a base and after the student becomes familiar with conformation he is given classes of animals to judge. In this way he is made familiar with the points necessary to the successful selection of individual animals. Specimens from the college herd, supplemented with stock belonging to the farmers in the valley, are used. This course is especially valuable to young men who expect to deal in any way with the livestock interests of the Territory.

Required of Agricultural Freshman, first and second semesters, 1 hour plus 2 hours practice. Credit .4 unit.

Breeds of Livestock. This course includes the study of history, development, characteristics, points of utility and adaptability to different **3, 4.** conditions of climate and soil of the different breeds of horses, cattle, sheep, goats, swine, and poultry. The object of this course is to familiarize the student with the different breeds, noting the excellencies and the deficiencies of each. Special attention is given to a discussion of the breeds best adapted to New Mexico conditions. The subject matter of the text is supplemented by practice in judging the different breeds according to the official standards. Pure bred animals from the college herd are used and, in addition, trips are made to outside breeders of pure bred stock. On these trips a study of the breeds, methods of handling, feeding and the general arrangement and conditions will also be kept in mind, thus putting the student in a position to accept positions on stock farms.

Required of Agricultural Sophomores, first and second semesters, 1 hour plus 2 hours practice. Credit .4 unit.

"The most successful farmers of the present day are those who work in harmony with the forces of nature which control the growth and development of plants and animals."—Goodrich.

Care and Management of Livestock. This course consists of lec-
tures on the feed, care, management, and sheltering of all classes of
5. livestock. A study is also made of the most profitable as well
as the most practical ways of preparing the feed.

Required of Agricultural Sophomores, first semester, 2 hours. Credit .2 unit.

Conformation and Soundness. Lectures supplemented by practical
work on horses. First the method of examination is taken up, and this
6. is followed by a study of the conformation which predisposes to
unsoundness, comparisons of normal and abnormal conditions and the
effect of the latter upon the use of the animal. The course also includes
a study of horse vices and the means practiced by horsemen to cover
up certain defects.

Required of Agricultural Sophomores, first semester, 1 hour. Credit .1 unit.

Principles of Horse Shoeing. A study of the right and wrong
conformation of legs and feet of the horse, with their effect upon the
7. direction of action, the structure of hoof, and the methods of shoe-
ing normal feet and diseased feet: methods by which faulty conforma-
tions may be corrected. In addition to the lectures a few practical
demonstrations are given so that the student may be able to do his own
shoeing or to direct it correctly.

Required of Agricultural Sophomores, second semester, 1 hour. Credit .1 unit.

Veterinary Elements. This course takes up the diseases and ailments
most common among farm animals. It includes the causes, prevention,
8. diagnoses and treatments with special reference to the methods of
eradication of contagious and infectious diseases. The class work is
supplemented by clinic work on cases that occur among the college herd.

Required of Agricultural Juniors, first semester, 1 hour plus 2 hours practice.
Credit .2 unit.

Principles of Feeding Live Stock. The principles underlying the
profitable feeding of animals are taken up in this course. A study of
9. the digestive system, principles of nutrition and the composition
of different feed stuffs, with a comparison of their relative values in
feeding different kinds of stock, obtained from a study of the experi-
ments conducted at the different stations. Special emphasis is put upon

the compounding of rations from feeds available to New Mexico farmers and the profitable feeding of stock under New Mexico conditions.

Required of Agricultural Juniors, second semester, 4 hours. Credit .4 unit.

10. *Packing-house Classes.* Lectures supplemented by outside reading on the packing-house industry, market classes of livestock, the methods of grading, handling, buying and selling, and causes of the variations in market prices.

Required of Animal Husbandry Seniors. first semester, 1 hour. Credit .1 unit.

11. *Animal Breeding.* This course covers the laws governing the breeding of animals and includes the principles of heredity, laws of correlation, variation, fecundity, atavism, in-and-in breeding, parentage, form types, and pedigrees. Attention is given to the selection of animals which would aid in the improvement of New Mexico stock.

Required of Animal Husbandry Seniors, second semester 2 hours. Credit 2 unit.

13, 14. *Advanced Stock Judging.* This course is a continuation of 3 and 4. It includes the placing of small classes of horses, cattle, sheep, goats, swine, and poultry with special attention to the selecting and mating of the breeding herds and flocks. Practically all the work is composed of visits to outside farms and ranches and stock shows. A general study of range stock and methods of running some of the best stock farms and breeding establishments will be made, thus preparing the student to manage stock farms.

Elective for Agricultural Seniors that have had Zootechny 3 and 4 both semesters, 2 hours practice. Credit .2 unit.

15. *Fitting Stock for Shows.* Lectures and practical work in preparing and fitting all kinds of livestock for show purposes. Includes the feeding, grooming, decorating, and training, the animals and practice in choosing the show herd; thus fitting the student to take charge of and manage such herds.

Elective for Agricultural Juniors and Seniors, first semester, 2 hours practice. Credit .1 unit.

"If stock feeding is to be conducted at a profit there must be put into it a high class of intelligence."—Smith.

16. *Packing-house Byproducts.* Investigation work concerning the packing-house industry, output, and uses for the various products.

Elective for Seniors, first semester, 1 hour. Credit .1 unit.

17. *Anatomy.* This is a series of lectures on the anatomy of domestic animals, considering the locomotory apparatus, including bones, articulations and muscles; a general study of the blood vessels; nerves; and all the internal organs; and the functions of each system. Demonstrated by use of charts along with practical work in dissection.

Elective for Agricultural Juniors and Seniors, 1 hour plus 2 hours practice. Credit .2 unit.

18. *Sanitary Science.* Lectures and reference work on the general topics of health and disease of animals, the causes, means of transmission, and effects of environment. Methods of prevention are studied, including disinfection, vaccination, quarantine, and prevention and suppression of infectious diseases by means of dipping, along with a consideration of dips. The course also includes a discussion of stable sanitation and its relation to ventilation, light, and drainage.

Elective for Agricultural Juniors and Seniors, second semester, 1 hour. Credit .1 unit

19. *Obstetrics.* Includes a course of lectures on the care of pregnant animals, fecundation, causes and prevention of sterility, pathology of gestation, normal parturition, and dystocia.

Elective for Agricultural Seniors, second semester, 1 hour plus 2 hours practice. Credit .2 unit.

20. *Investigations with Poultry.* Research work along new and original lines pertaining to the poultry business.

Elective for Agricultural Juniors and Seniors, second semester, 2 hours practice. Credit .1 unit.

* * *

Dairying

THE completion of the new irrigation projects which will render vast desert areas productive, the breaking up of immense range areas into numerous smaller holdings, and the conquest of the markets to the south and southwest of us, will have a marked influence upon the dairy industry in New Mexico. Owing to the naturally good conditions of climate and markets, dairying have a very bright future.

Agricultural College

1. *Dairying.* The course in dairying comprises a study of the properties of milk and methods of handling milk and its products in the private dairy and thoroughly equipped creamery. Receiving and weighing, testing, separating, ripening cream, churning, pasteurizing, and marketing are subjects discussed in the class room. The work also includes a study of the secretion, composition, food value, care, changes, and adulteration of milk.

Required of Agricultural Juniors, first semester, 1 hour plus 2 hours practice.
Credit .2 unit.

2. *Advanced Dairying.* This course comprises an application of bacteriology to the dairy,—giving special attention to the location, construction, drainage, ventilation, etc., of the dairy building. Practice in scoring market classes of butter and cheese will be offered together with a study of dairy markets and the value and use of dairy by products.

Required of Animal Husbandry Seniors, first semester, 1 hour plus 2 hours practice.
Credit .2 unit.

* * *

Equipment

FUNDS have been appropriated for a new building for carrying on instruction in the various lines of agriculture. This building will be completed soon and will provide offices, class rooms, and laboratories in Agronomy, Animal Husbandry, Dairying, Horticulture, and Irrigation.

The College Farm. The farm connected with the College contains one hundred and seventy acres of land under irrigation, a portion of which is divided into fields and plats for use in demonstrating class room work. The crops grown include various grasses, cereals, roots, forage, and other farm crops which make useful adjuncts in the student's study of crop growing.

Agronomy Laboratory. A large laboratory for agronomy has been provided in the new building which will supply excellent rooms for grain judging, illustration, etc.

Agricultural College

Agricultural Engineering. A room 24 feet by 31 feet will be used for the display of farm machinery, showing parts, action, etc. Each group of farm implements is represented by different patterns. A room is devoted exclusively to farm motors, and in this room will be placed a number of gasolene engines of various styles. Special effort is constantly made to have the latest improved farm machines, thus enabling the students to study the different machinery used in this as well as other sections of the country. Farm machinery and implements and farm motors have been added to the Agricultural Engineering Laboratory equipment to the value of about $8,000.00 during the last year. Therefore one of the best equipments for an Agricultural Engineering Laboratory is available for instruction purposes.

Pumping plants have been installed which give opportunity for studying the possibilities in pumping for irrigation. Other equipment, such as weirs, adjustable spill-gates, various kinds of measuring apparatus, etc., is available for study.

Class Rooms in Agronomy and Agricultural Engineering. Besides the three laboratories enumerated, class rooms will be provided which will accommodate a large number of students.

* * *

Livestock. The livestock equipment has been increased very substantially the past year, making possible the giving of very thorough courses in breeds of livestock and in judging. Owing to the fact that the dairy outlook is very bright, the dairy herd has been increased so that now there are fine specimens, both males and females of the Guernsey, Jersey, and Holstein breeds. There are only two beef breeds popular in New Mexico at the present time, consequently the equipment in the beef type of cattle is confined to specimens of the Herford and Shorthorn breeds.

The wool, mohair, and mutton interests are growing faster than any line of livestock industry, therefore the equipment in this line has been put in new. The flock consists of representatives of the Rambouillet, Shropshire, Lincoln, and Hampshire Down, which come from the best flocks in the central west. A good flock of Angora goats is also maintained.

Agricultural College

Four breeds of swine are represented — Tamworth, Yorkshire, Duroc-Jersey, and Berkshire. They are all fine specimens of the respective breeds and come from the prize-winning stock of the Chicago International Show. Recognizing the growing importance of the poultry industry, there has been installed a complete new equipment. Representatives of the leading breeds have been purchased from the best breeders and placed in a modern poultry house.

Livestock Class Room. The new building will be commodious in its facilities for work with livestock. A well lighted room 24 feet by 31 feet is provided with a tan-bark ring, so that the stock can be brought in before the class. Charts and diagrams placed upon the walls will make the class work easier and more instructive.

Dairy Laboratory. In the new building there have been set apart two large rooms for dairying: one, a farm and experimental laboratory; the other, the home dairy. The latter will be used for class instruction purposes only. The two dairies will be equipped with everything that is best in the dairy line. Bottling, washing, and pasteurizing apparatus are of the very latest models as are also the churns, separators, and cheese presses. Several makes of farm separators will be used in the laboratory where the students will have ample opportunity to study the merits of the different machines.

* * *

Student Labor. In connection with the investigations of the Department there are many opportunities which will enable industrious students to use a certain amount of their time for practical work. This labor is paid for at the rate of from 10 cents to 25 cents per hour. Naturally, work of this nature can be made an important aid to those who desire to pay part of their expenses while in college.

"But the laws and principles which control his practice each farmer must know before he can secure his results with the greatest certainty and at the least cost.—King.

Winter School of Agriculture and Household Economics

THE NEW MEXICO College of Agriculture and Mechanic Arts, hoping to meet the needs of the rural population of New Mexico, offers a four months winter course in agriculture and household economics. No doubt there are a large number of young men and young women upon our farms and ranches who desire to better themselves for their work, but who cannot be spared from home during the busy season. The winter school is designed especially to meet the demands of such students. It begins late in the fall and ends early in the spring, running only during the winter when the duties of the farm and ranch are light. Young men and young women over fifteen years of age are eligible to this course. While a study of the fundamental principles is made a strong feature in the course, the practical application of those principles is given proper attention. The first term begins *October 26th* and ends *December 19th, 1908*. The second term begins *January 4th* and ends *February 26, 1908*. Certificates will be awarded to those completing a four months course.

A brief statement of the character of the instruction follows:

Elementary Agronomy. This course deals with the fundamental principles of agricultural operations. The reasons for each agricultural operation are strongly impressed by simple demonstrations in class and by laboratory exercises in which each student determines the relations between cause and effect. In this way the student gradually develops ability to think, plan, and organize. The student's interest in the seemingly most trivial operations is aroused through the discovery that they markedly affect the results.

Farm Machinery. The course will include a study of the use, construction, and principles of operation of various farm implements and farm motors. The instruction in general farm implements will be given during the first term of the first year while that of the second term will deal principally with farm motors. Since the gasolene engine is one of the simplest and most easily operated of farm motors, instruction will be given on the principles of construction and operation of the various types of gasolene motors, including both two and four cycle engines and the various types of water, oil and air-cooled engines. The application of steam and electricity to farm operations will also receive attention. The class room work in farm machinery, which consists largely of a study of the mechanism and basic principles of operation, is rendered more effective by a careful study of the machine itself. The work in farm machinery includes taking down, setting up, and operating the various farm implements and farm motors, special attention being given to the gasolene engine and the windmill. In the new building one room will be devoted wholly to general farm machinery and another to motors. This course is especially valuable for young men who are engaged in stock raising, to whom ability to operate engines and pumping machinery and make simple repairs is so very necessary. For this purpose a large collection of farm implements has been secured from the manufacturers.

Farm Wood Work. A knowledge of the use of wood working tools is necessary in order to be able to perform the usual repairing upon the farm or ranch. This course in wood work aims to give the needed proficiency in the use of such tools by practice in the performance of actual repair work under a competent instructor. The course meets the real needs of the young man upon the farm or ranch.

Animal Husbandry. In lessening the cost of production and increasing the margin of profit, the livestock interests play an important part. It is especially true nowadays on account of the rapid rise in the price of land. Therefore in order to work successfully with livestock, a man learns that there are special animals for special purposes. Stockmen have recognized this fact, and have given us many breeds of cattle, horses, sheep, and swine. In the second term of the first year this work is taken up—history, development, and characteristics. Three hours per week are given to it and specimens of the breeds and types are used in the class room.

Stock Judging. In selecting of breeding stock for the future herd and for the production of the best animals for the market, it is absolutely necessary that the student have a good clear conception of animal form. In view of this, in the same term that studies of breeds and types are taken up, the student spends two afternoons a week with stock taken from the college herd, in the study of animal form. The work is started with the scale of points and score card. When the student becomes familiar with that part of the work, he is required to judge animals of the different classes.

Dairying. The people of the Territory are beginning to recognize the fact that dairying is very profitable. For this reason, two courses have been installed. The first consists of a study of the theory of dairying; milk—its care and methods of handling; creaming, pasteurizing, and separating. The second course is practice entirely and is given in the farm dairy and in the laboratory. It consists of practice in butter making, cheese making, bottling, separating, and pasteurization.

Stock Feeding. Thousands of dollars annually are wasted in injudicious feeding of stock. It is the prime object of this course to teach the student to feed economically. Different feeds for different animals are considered; standards in feeding, balanced rations, etc., considered from a strictly practical standpoint.

Care and Management of Live Stock. In the keeping and raising of livestock there is much more than the mere feeding. There is much important work in study of methods of shelter, corralling, fencing, etc., of the different classes of farm animals. This is taken up in a course offered during the second year.

Veterinary Elements. There is not a stockman but that at some time has had sickness or injuries among his flocks or herds. To be successful with stock a man must have some elementary veterinary knowledge and know of a few common remedies that can be used on short notice. A course for this purpose has been planned, in which the common diseases, injuries, etc., are taken up, as well as their causes, symptoms, and treatments. The science of veterinary obstetrics receives special attention.

Poultry. It is just being recognized that the raising of poultry is a paying industry, especially where alfalfa is so easily raised. For this reason a course has been planned to meet the need of information on this subject. It treats of the breeds, judging, feeding, and care and management of poultry.

Cooking. (First term). The cooking of vegetables, cereals, eggs, milk, and cheese will be taught during the first term. Stoves, fuels, and the effect of heat on different foods will be discussed.

Sewing. (First term). Each pupil will make a model book covering the full course of sewing.

Cooking. (Second term). The work will be a continuation of the work of the first term with the addition of the cookery of meats, breads, and simple desserts.

Sewing. (Second term). Each pupil will furnish materials, draft, cut, and make a complete set of underwear.

Hygiene. The course will cover a discussion of the laws of health and right living.

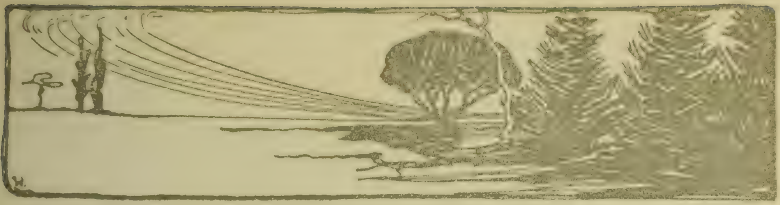
Cooking. (Third term). A few lessons will be given in the canning and preserving of fruits. This will be followed by the making of more complicated dishes as cakes, pastries, salads, etc.

Sewing. (Third term). During the term each pupil will draft, cut, and make a cotton dress for which she will furnish the materials.

Cooking. (Fourth term). The planning, cooking, and serving of different meals in the dining-room of the department will comprise the work of this term.

Sewing. (Fourth term). Each pupil will draft, cut, fit, and make a woolen dress for which she will furnish material.

Household Sanitation. The construction, furnishing, and care of a house will be discussed in this course.



Department of Horticulture

Professor Garcia Mr. Mundell

THE endeavor in teaching this subject is to acquaint the students with the theoretical and practical phases of Horticulture, having in view the thorough training of young men for successful work in horticultural pursuits, such as fruit growing, nursery business, floriculture, market gardening, and viticulture. The instruction is given by text-books and lectures, supplemented by outside reading, laboratory practice, and field observations.

A. *Elementary Horticulture.* Introductory principles. The work will necessarily be introductory in nature yet sufficiently comprehensive to be of practical use, as well as to form a basis for advanced work for those who wish to pursue the subject further. The laboratory work is so arranged as to consist of operations most likely to be useful to the student after leaving college. The student will learn how to start new plants, graft, bud, top work, prune, plant, etc.

Required of all Third Year Preparatory students who do not elect Latin, second semester, 1 hour plus 2 hours practice. Credit for college entrance .2 unit.

1. *Greenhouse Methods.* Work in the greenhouse, with hotbeds, and with cold frames occupies an important place among horticultural subjects. Varieties of flowers and vegetables adapted to this line of work in this climate are studied, and due attention is given to methods of growing them for home supply and for market.

Required of Agricultural Freshmen, first semester, 1 hour plus 2 hours practice. Credit .2 unit.

"Both as a science and an art, horticulture is capable of becoming a distinct force in College and University instruction."—L. H. Bailey.

Horticulture. The whole field of propagation is covered under this heading, and includes propagation by seed, separation and division, 2. layering, cuttings, budding, grafting, etc. General nursery management is made a strong feature of the work, and the student is familiarized with nurserymen's methods. The practice in this course affords students opportunity to propagate plants and trees by all the different methods studied in class. This course is an essential to all future horticultural work. The Nursery Book by Bailey is the text used, supplemented by outside reading.

Required of all Agricultural Freshmen, second semester, 1 hour plus 2 hours practice. Credit .2 unit.

Olericulture. General principles underlying vegetable culture; practical work in planning and laying out vegetable gardens; preparing 3. seed beds, planting, transplanting, cultivation, irrigation, and preparing vegetables for market. Green's Vegetable Gardening is used as a text.

Required of Agricultural Sophomores and Household Economics Freshmen, second semester, 1 hour plus 2 hours practice. Credit .2 unit.

Economic Entomology. This course is designed to give students a fair knowledge of the principal groups of insects of economic import- 4. ance, special attention being given to the study of injurious insects and the means of destroying them.

Required of Agricultural Juniors, first semester, 2 hours. Credit .2 unit.

Pomology. The work in pomology includes all the subjects relating to fruit culture: location and climate, wind-breaks; tools and tillage, 5. plants and planting; thinning, pruning, spraying, irrigating, picking, packing, and marketing are among the subjects presented. The Experiment Station orchards and vineyards and several commercial orchards and vineyards in the vicinity afford unusual means of illustration, and enable students to become acquainted with varieties which are adapted to this section. Bailey's Principles of Fruit Growing, and Fletcher's How to Make a Fruit Garden are the texts used.

Required of Agricultural Juniors, first semester, 2 hours plus 2 hours practice. Credit .3 unit.

Landscape Gardening. A study of systems of landscape gardening, comprising such subject matter as laying out and planting residence 6. grounds, railroad, hotel, and public parks; location and setting of houses and other buildings, avenues, drives, walks, ornamental trees, shrubs, and flowers adapted to planting in New Mexico; lawns, beds, and borders; grouping, variation, and the general principles involved in the arrangement and planting of home grounds and farm for beauty, comfort, and utility.

Required of Agricultural Juniors, second semester, 2 hours. Credit .2 unit.

Plant Breeding. The student having completed his biological studies is prepared for a discussion of plant breeding and the evolution of cul-
7. tivated plants. Selection, crossing, variation, and the influence of environment, food, etc., are investigated.

Required of Horticultural and Agronomy Seniors, first semester, 2 hours. Credit .2 unit.

Forestry. This includes the study of wind-breaks, utility of forest plantations, and the general influence of forests on the climate and
8. water courses. Forest and street tree planting will also receive attention.

Required of Horticultural Seniors, first semester, 2 hours. Credit .2 unit.

Viticulture, Small Fruits, and Nut Culture. A study of the cul-
9. tivation of the grape, small fruits, and the different nut-bearing trees.

Required of Horticultural Seniors, second semester, 1 hour plus 2 hours practice. Credit .2 unit.

Systematic Pomology. This work will take up the evolution, classi-
10. fication, judging, and description of fruits.

Elective for Agricultural Seniors, who have completed Horticulture 5, first semester, 2 hours practice. Credit .1 unit.

Systematic Olericulture. A study of the evolution, classification,
11. judging, and description of the different vegetables.

Elective for Agricultural Seniors, who have completed Horticulture 3, first semester, 2 hours practice. Credit .1 unit.

Storage and Preparation of Fruits and Vegetables for Exhibition. This course will include the study of the different methods of storing
12. fruits and vegetables, and the preparation and use of the different formulae for the preserving of fruits and vegetables for exhibition purposes.

Elective for Agricultural Seniors, first semester, 2 hours practice. Credit .1 unit.

"The forest is as beautiful as it is useful." —Pinchot.

Floriculture. While the work in floriculture is designed to be of a popular and a practical nature, yet a few of the more general principles upon which successful floriculture is based will be taught.
13. The student is expected to become acquainted with the common floricultural operations, such as making cuttings, mixing soils, potting, repotting, watering, the germination of seed, the arrangement of flowers in bouquets, etc. The principles involved in the laying out and plant- of home grounds and the study of the flowering and ornamental plants adapted to New Mexico conditions will also receive some attention.

Elective for Agricultural and Household Economics Seniors, first semester, 1 hour. Credit .1 unit.

Advanced Forestry. The study of the economic management, forest
14. laws, the protection of the forest from fire and diseases, and the preservation of timber, etc.

Elective for Agricultural Seniors who have completed Horticulture 9, second semester, 1 hour. Credit .1 unit.

Phenological Field Work. Students taking this work will be re-
15. quired to take notes of the blooming, fruiting, growth, etc., of different fruits and vegetables.

Elective for Agricultural Seniors who have taken Horticulture 2 and 5, second semester, 2 hours practice. Credit .1 unit.

Tropical Fruits. A study of the culture, classification and evolution
16. of the tropical and semi-tropical fruits.

Elective for Agricultural Seniors, second semester, 1 hour. Credit .1 unit.

Literature of Horticulture. This course is given to discussions of
17. literature pertaining to Horticulture. Bulletins of Experiment stations, current horticultural papers, and magazines are reviewed.

Elective for all Agricultural Seniors, second semester, 1 hour. Credit .1 unit.

* * *

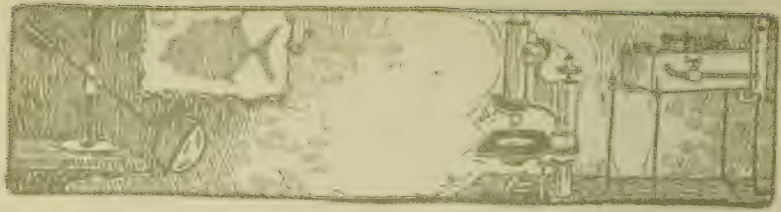
Equipment

THE department library contains a number of books of reference on all subjects of Horticulture, including the Cyclopedia of American Horticulture, the Illustrated Dictionary of Gardening, Pruning Book, Evolution of Our Native Plants, the reports of the American Pomological Society, and many monographs on the different orchard fruits, small fruits, vegetables, and flowers. In addition to a number of different styles of orchard and garden cultivators, the department has a good supply of the different kinds of pruning knives, shears, and saws, as well as garden trowels and dibbers. There are five kinds of sprayers; a knapsack, a barrel force pump, a kerowater pump, a large Wallace power sprayer, and a gasolene power sprayer. All of these are used in the laboratory work and students wishing to make a special study of any of these implements are at liberty to do so. There is a fair collection of fruits preserved in formalin to which the student has free access for studying varieties.

The experimental orchards and vineyards contain many varieties of fruit trees and vines. An experimental apple orchard and a plantation of strawberries and other small fruits have been planted, as well as a vineyard to study varieties of the *Vitis vinifera* grape and its resistance to the crown-gall. The vegetable gardens, greenhouse, and cold frames, afford excellent opportunity for study and experiment. The arboretum, forestry plantations, and lawns give enlarged facilities for observation and study.

Constant additions are being made to the equipment. The experimental work of the Experiment Station, carried on by this department may be made an excellent adjunct to the instruction given in class, affording as it does opportunity for the student to become acquainted with different lines of investigational and practical horticulture. The students are also given an opportunity to visit the commercial orchards, vineyards, truck gardens for study and observation. The department has secured a 23-acre farm to be used for experiment purposes, where all the investigational work is conducted.

This department will have an office, a class room, and a laboratory on the second floor of the new Agricultural Hall. When we move into our new quarters, they will be equipped with a complete set of models of all the common varieties of apples, pears, peaches, plums, cherries, and small fruits; charts showing the diseases of fruits and vegetables; vegetables preserved in formalin; set of plant breeding instruments; breeding cages, etc. to study the life history of some of the more destructive insects of this region, small glass-covered cases with samples of the seed of all the vegetables; specimens of our different forest trees, etc.



Department of Biology

Professor Wooton

Mr. Standley

THE required course in biology is only elementary and general in character, and designed to present the general principles of the subject to the student and at the same time introduce him to a limited number of types of the various larger classes of animals and plants. For the work the lecture and laboratory method is used.

Bacteriology. Lectures and demonstration work on bacteria of water, air, soil, and foods, and those causing fermentation and disease. 1. Sternberg, Muir and Ritchie, Duckwall, Conn, and Newman's books are used for reference.

Required of General and Household Economics Freshman and Agricultural Sophomores, first semester, 2 hours. Credit .2 unit.

General Zoology. Most of the time is taken up in the discussion of the general biological principles which apply to living organisms. The 2. work covers the following subjects as they apply to animals: the cell, conditions of life, reproductory methods, function and structure, adaptations, associations with the same and different species, special senses, instinct, distribution, etc. During the laboratory period dissections of a few of the more common types are made and drawings representing the various systems of organs are required.

Required of Freshmen of the General and Household Economics courses and of Agricultural Sophomores, second semester, 2 hours plus 2 hours practice. Credit .3 unit.

Zoological Laboratory. Largely devoted to the study of animal 3. types and further classification of animals.

Required of Sophomores of the General and Household Economics courses, first semester, 1 hour plus 4 hours practice. Credit .3 unit.

"The true object of science is to lead the mind of man towards its noble destination—knowledge of truth."—Cuvier.

Advanced Physiology. Lectures, demonstrations, and recitations on
4. the anatomy, histology, and physiology of the human body. Text-
book, The Human Mechanism, by Hough and Sedgwick.

Required of Sophomores of the General and Household Economics courses, second semester, 3 hours. Credit .3 unit.

Plant Physiology. Lectures and laboratory practice on relations of
plants to their environmental stimuli; composition of the plant body, its
5. changes, construction and destructive. Sachs, Detmer, MacDou-
gal, and Ganong are used for reference.

Required of Agricultural Juniors, second semester, 4 hours practice. Credit .2 unit.

Plant Diseases. The work of this course treats of the various dis-
6. eases which affect the common field, orchard, and garden crops,
with a consideration of the best methods of preventing or curing the
diseases.

Required of Seniors in Agronomy and Horticulture, elective to all others who have had Biology B and A, first semester, 1 hour. Credit .1 unit.

Elective Courses are offered by this department in either zoology or botany, the particular branch of either subject being largely at the option of the student. Special facilities for the study of the flowering plants of New Mexico are to be obtained at this institution. All students electing work in this department must have completed Biology B, A, 2, and 3. Minimum, 6 hours of practice; credit 36 hours; more time in proportion. All such electives will be accepted as minors for graduate work. Students doing major graduate work in this department must have done one year of elective work in some biological subject besides Biology B, A, 2, and 3, and for that major must do not less than ten hours per week for one year. Arrangements for all elective and graduate work must be made with the head of the department.

⁂

Equipment

THIS department occupies three rooms on the upper floor of Science Hall. One room is used solely as a laboratory for biology and physiology. It is equipped with gas, water, tables, cases, dissecting and compound microscopes, microtomes, necessary instruments and materials, charts, casts, bacteriological incubator, ovens, and a general assortment of apparatus, glassware, and reagents for all kinds of biological work. A second room is used as the herbarium. In it are the college herbarium of about 18,000 sheets and the private herbarium of the head of the department, about 6,000 sheets. These two herbaria contain representatives of perhaps 85 per cent. of the species of flowering plants and ferns of the Territory of New Mexico. There are also about 2,000 specimens of fungi and algæ represented, the greater portion of these being named fungi of economic importance. The herbarium has abundant case and table room. The third room is used as an office for the department, and contains the departmental library of 535 volumes, and several hundred bulletins and pamphlets. This library contains the leading texts and manuals in botany and zoology, with many valuable and rare old books relating to the flora of this region.

* * *

Geology

THE work in Geology is taught by lectures and recitations with prescribed text-book reading. Occasional field work is arranged for as often as facilities will permit.

7. *Dynamical Geology.* Includes dynamical, structural, and physiographic geology, some considerable stress being laid upon rocks, rock-making minerals, and their derivative soils. Chamberlin and Salisbury's geology Vol. I, is used as text-book.

Required of all (except Agricultural) Seniors, first semester, 3 hours, Credit .3 unit.

8. *Historical Geology.* A detailed treatment of the geological history of the earth together with some elementary work in paleontology.

Required of Seniors of the General and Household Economics courses, second semester, 3 hours. Credit .3 unit.

Equipment

The department of Geology occupies one room on the second floor of Science Hall and has at its disposal a collection of the common minerals, the U. S. Geological Survey collection of rocks, a Bausch and Lomb petrographic microscope, several hundred fossils, numerous casts and maps, and a departmental library of over 250 volumes and many pamphlets.

Physiology. An elementary treatment of the subject of human
D. anatomy, physiology, and hygiene with some simple laboratory practice in the subject. Coleman's Elements of physiology is the text used.

Required of all Second Year Preparatory students, first semester, 5 hours. Credit for college entrance .5 unit.

Physiography. The work of this class will be of an elementary character covering the subject as fully as the time will permit.
C. It consists mainly of recitations of assigned lessons, with explanations and demonstrations from maps, casts, and specimens. The class will take occasional field trips.

Required of all Second Year Preparatory students, second semester 5 hours. Credit for college entrance .5 unit.

Botany. The work of this class is a general survey of the whole plant kingdom, the greater part of the time being devoted to plant morphology
B. and the development of the larger groups. The work of the
A. first semester relates mainly to the flowering plants, discussing the details of their structure, functions, and habits. The second semester is devoted to the study of the structure of the more primitive types and the evolutional history of the whole kingdom. Students in this class are supplied with compound microscopes and all other necessary apparatus and sections for the study of all the larger classes of plants. Notebooks containing drawings of all plants studied are required as part of the work.

Required of all Fourth Year Preparatory students (except Engineers) and Agricultural Freshmen throughout the year, 1 hour plus 4 hours practice. Credit for college entrance .6 unit.

"The education of a Naturalist now consists chiefly in learning how to compare."—Agassiz.

Department of Physics

Professor Tinsley — Mr. Stockton

Physics

THE course in General Physics is designed to present a general survey of the subject and acquaint the students with the fundamental conceptions of matter and energy, their laws, and the practical application of these to the problems of engineering, agriculture, etc. The method of instruction is by recitations, lectures, demonstrations, and laboratory practice.

Elementary Physics. Introductory principles of the subject.

Required of all Third Year Preparatory students, 3 hours throughout the year. Credit for college entrance .6 unit.

General Physics. 1. The properties of matter; mechanics of solids and liquids; and heat.

Required of Agricultural Sophomores, and Freshman of all other courses, first semester, 3 hours. Credit .3 unit.

General Physics. 2. Study of sound, light, and electricity.

Required of all Freshmen (except Agricultural students), second semester, 2 hours. Credit .2 unit.

Physical Laboratory. 3. Experiments in mechanics and heat.

Required of Agricultural Juniors, and Sophomores of all other courses, first semester, 4 hours practice. Credit .2 unit.

Physical Laboratory. 4. Experiments in sound, light, and electricity.

Required of Sophomores in the General and Engineering courses, second semester, 4 hours practice. Credit .2 unit.

Agriculture at College

Advanced Physics. Advanced work, principally experimental,
5 adapted to the needs of the students. Elective for students who
6. have completed Physics 1, and 2, and a minor for graduate
students.

3 hours recitation or 6 hours practice required as a minimum. Credit for 3 hours
is .3 unit, additional time credited in proportion.

* * *

Soil Physics

THIS course is designed to meet the increasing demand among agriculturists for a more intimate and extensive acquaintance with the soil. It also fits students to become specialists in soil work. In this line the demand for trained men now exceeds the supply for the various soil surveys which are being undertaken by the state and national governments.

Soil Physics. A brief survey of the origin and physical characters of
soils by lectures and recitations; with laboratory and field practice in
1. soil sampling, determinations of moisture, salt content, water
holding power, mechanical analyses, classification, and mapping.

Required of Agricultural Juniors, and elective for other students, second semester,
6 hours practice. Credit .3 unit.

Advanced Soil Physics. Advanced work on soils. Elective for those
2, 3. who have completed Soil Physics 1, and as a minor for graduate students.

Minimum 6 hours practice. Credit for minimum .3 unit.

Graduate Work on Soils. Advanced work on soils. Offered as a
4, 5. major for graduate students who, wishing to specialize in
this line, have completed Soil Physics 1, 2, and 3.

Time required, equivalent of 10 lecture hours per week. Credit 2 units.

Meteorology. Lectures and recitations with accompanying laboratory
practice. A study of the common meteorological instruments, their
6. construction and uses, and those meteorological phenomena having most direct bearing on the agriculture of New Mexico.

Required of Agricultural Juniors and elective for other students, second semester,
1 hour. Credit .1 unit.

> *"In order that knowledge shall be made alive, it must become a part of the student's experience by actual experiments carried out by the student himself."—S. H. Gage.*

Agricultural College

Equipment

THIS department occupies two rooms on the second floor of Science Hall.

The physical laboratory is a large room (50x20 ft.) on the south side of the building, well adapted to physics work. It has in it a dark room, supplied with gas and water, for photometric and photographic work, wall cases for the storage of apparatus, lecture table, and wall desks for student work.

The room devoted to soil work is well fitted with work desks, tables, and shelving, and is supplied with gas and water.

The physical laboratory is quite well supplied with apparatus for the usual class demonstrations and practice. In addition there are a number of pieces of finer apparatus for advanced work; e. g. Atwood's machine, balances, barometer, thermometers, including one of Green's standards, spectrometer, polariscope, stereopticon, photographic outfit, Rowland D'Arsonval and tangent galvanometers, resistance box, standard cell, and Wheatstone bridge.

The soil physics laboratory is especially well equipped, this being one of the prominent lines of investigation of the Agricultural Experiment Station. The equipment includes electrical apparatus for the determination of "alkali" in soils and waters, electrical soil hygrometers and accessories, soil samplers, drying ovens, balances and weights, shaker, water motor and centrifuge for mechanical analyses of soils, and the necessary glass and platinum ware and reagents for carrying on investigations of the physical properties of soils and their salt content. For the work in meteorology, in addition to an evaporation tank and anemometer, there is a complete set of self recording instruments, automatically registering the wind direction and velocity, amount of rainfall, hours of sunshine, temperature, humidity, and barometric pressure.

"In making observations be sure that you are right and then look again."—John H. Comstock.

Department of Chemistry

Professor Hare | Mr. Pringle | Mr. Mitchell

THIS department offers exceptional facilities for work in chemistry, and also offers courses in mineralogy and assaying. Students of all courses are required to pursue the course in general chemistry for three semesters. The object of this course is to teach the student the pure principles of the science of chemistry, so that they may be intelligently applied to future work in chemistry, or to the various allied sciences found in all the six courses offered by the college. The method of instruction is by recitations, lectures, demonstrations, and by an application of all principles by the student in the laboratory.

A year's course is offered to those who wish to become practical assayers. Those students taking this work must also take the courses offered in general chemistry, mineralogy, and geology.

Elective courses are offered in the different branches of advanced chemistry.

General Chemistry. 1. A study of the fundamental laws and theories of chemistry in the class room, and their practical application by the student in the laboratory.

Required of Agricultural Sophomores, Freshmen of all other courses, and of **Assaying students, first semester, 2 hours. Credit .2 unit.**

General Chemistry. 2. Continuation of previous term's work.

Required of Agricultural Sophomores, Freshmen of all other courses, and Assaying students, second semester, 3 hours. Credit .3 unit.

> *"It is the glory of modern science to have shown that the phenomena of the universe are capable of being grouped into classes and sub-classes, and that through all the ramifications runs an essential nexus, or genetic association."—J. C. Arthur.*

3. *Qualitative Analysis.* Consisting principally of laboratory experiments in general qualitative analysis.

Required of Agricultural Juniors, Sophomores of all other courses, and Assaying students, first semester, 4 hours practice. Credrt .2 unit.

4. *Organic Chemistry.* An elementary course in general organic chemistry, designed to fit the student for future work in biology and chemistry of foods. Instruction by lectures and laboratory experiments.

Required of Freshmen in General and Household Economics courses, second semester, 2 hours. Credit .2 unit.

5. *Quantitative Analysis.* The work in this course will be altogether in the laboratory. It will be a quantitative estimation of various organic and inorganic substances, the line of work being in each case adapted to the needs of the student.

Required of Agricultural Juniors, Sophomores of all other courses, Assaying students, and elective to all students who have completed Chemistry 1, 2, and 3. Second semester, 4 hours practice. Credit .2 unit for minimum time; more in proportion.

6. *Agricultural Chemistry.* This subject is taught both in the class room and laboratory. Snyder's "Chemistry of Soils and Fertilizers" and "Chemistry of Plant and Animal Life" are used as texts, these being supplemented with lectures and various experiment station publications.

Required of all Agricultural Seniors, first semester, 3 hours. Credit .3 unit.

7. *Agricultural Chemistry.* Laboratory work in the analysis of agricultural products, waters, soil, etc.

Required of all Agricultural Seniors, second semester, 6 hours practice. Credit .3 unit.

8. *Advanced Chemistry.* The nature of the work done during this semester is left largely to the choice of the student; but, in general, it usually consists of laboratory work along some line of original investigation. The work, especially during the latter half of the semester, should be along the line leading to the thesis work to be taken up next.

Elective for all students who have completed Chemistry 7, second term, minimum time 6 hours practice. Credit .3 unit for minimum time, more in proportion.

Thesis. Students who elect chemistry for their thesis work, are required to take up some line of original investigation and prepare a paper
9. on the same. The work is principally in the laboratory, supplemented by a course of outside reading. While but one semester is required for thesis work it is much better to select the subject in the second term and devote a considerable portion of that term to the work.

Required of all Seniors who choose a chemical thesis, second semester, 10 hours practice as a minimum. Credit .5 unit.

Graduate Work. Advanced work in chemistry, leading to the degree of M. S., is offered to graduate students. The character of the work
10. selected is left largely to the choice of the student, subject to the
11. approval of the head of the department. The work taken up,
12. however, must consist largely of original research along some line of chemical investigation. It practically amounts to a continuation of work of the same character as the thesis work of the Senior year, although the subject may be different.

The minimum time requirement for this work as a major is 10 hours per week throughout the year.

Mineralogy. A laboratory study of the more important minerals, special attention being given to the ores and other minerals of commercial
13. value. The more important rock-making minerals are studied as completely as the time devoted to the subject will permit. Dana's System of Mineralogy, Brush and Penfield's "Determinative Mineralogy," and other standard works are used as reference books.

Required of Juniors of the General and Engineering courses and Assaying students, first semester, 6 hours practice. Credit .3 unit.

Assaying, Dry Methods. For the accommodation of those of our students who desire to elect the subject of assaying, instruction is given
14. in the fire assay of gold, silver, and lead ores. Each student is assigned furnaces, and is supplied with the necessary crucibles, scorifiers, material for making fluxes, etc. Besides other necessary apparatus, he also has the use of the balances for weighing charges, mixing fluxes, and weighing gold and silver beads.

Required of all Assaying students, and elective for others who have completed Chemistry 1, 2 and 3, first semester, minimum time 6 hours. Credit .6 unit.

"But a rational system of agriculture cannot be formed without the application of scientific principles. This knowledge we must seek from chemistry."—Liebig.

Assaying, Wet Methods. The study of the quantitative determination 1. of the common elements by both volumetric and gravimetric methods.

Required of all Assaying students, and elective for others who have completed Assaying 1, second term, minimum time 6 hours. Credit .6 unit, or more in proportion.

The work in assaying is principally in the laboratory, but is supplemented by a course of reading in standard books on assaying, analytical chemistry, etc.

The time required during the year, of students taking assaying, is six hours or equivalent practice per week. It will usually be possible, however, to arrange for extra work; and students are strongly urged to do so when possible, as the amount of knowledge gained in this subject depends largely upon the time devoted to it in the laboratory.
Students taking assaying are also required to take the regular work in chemistry, geology, mineralogy, and metallurgy.

Students will not be admitted to the course in assaying, unless they have sufficient preliminary training to enable them to carry the work.

* * *

Equipment

THE chemical department occupies all of the lower floor of Science Hall with the exception of one room. The college work and the station work have separate quarters. Six good sized rooms and a smaller store room are used in the instruction of students, and two rooms and a store room, for the station work. A small brick building, stationed at a safe distance from the main building, is also used by the department as a store house for gasolene and other combustible and explosive substances.

The rooms set apart for use in the instruction of students are as follows:

A large qualitative laboratory for students beginning the study of chemistry. This laboratory is fitted with work desks which are supplied with gas, water, and drain, and have drawers and lockers with combination locks. The qualitative laboratory also contains, among other things, a sink, and a fume closet for work in which noxious gases are present.

"Books must follow the sciences; but not sciences books." -Bacon. 64

A quantitative laboratory for the use of advanced students. This laboratory is supplied with two thoroughly equipped work desks, fitted with gas and water pipes, a drain trough through the center, a bottle rack on the top, and drawers and lockers with combination locks. This laboratory also contains a first class fume closet and sink.

A laboratory for work in Mineralogy. This is a large room with a well equipped work desk twenty feet long, a brick and sheet-iron covered furnace table with four gasolene furnaces, and other accessories to make complete a laboratory of this character.

A fire-proof assay laboratory, which contains six gasolene crucible furnaces and two muffle furnaces. This laboratory is also supplied with two ore crushers, a sampling plate, two sets of sieves, crucibles, tongs, cupel moulds, and other accessories necessary in a well equipped laboratory of this character.

A weighing room, opening into the quantitative and assay laboratories, is fitted with a substantial balance-table mounted on brick piers in contact with the ground, a high grade assay balance, two chemical balances, and a heavier balance for rough weighing. This room is also provided with a series of bins for storing the fluxes, assay charges, etc., and with a case for sample bottles.

A lecture room, supplied with a lecture desk, a sink, water, gas, charts, and other accessories.

A conveniently located storeroom for chemicals and general laboratory supplies for students.

The laboratories used for the chemical work have brick walls and wooden ceilings, fourteen feet high. Each laboratory is supplied with one or more ventilating flues which aid in the removal of fumes and in the ventilation of the rooms. The general equipment of the laboratories has been very materially increased and is modern and first class in every particular.

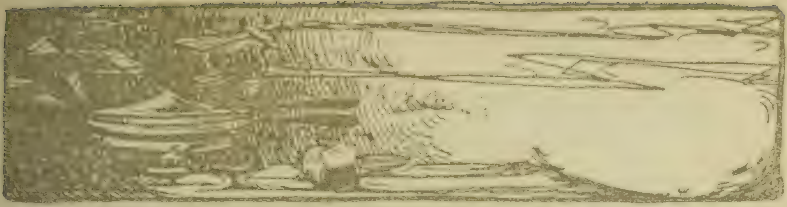
The laboratories fitted up for the accommodation of the Experiment Station work contain, among other things, three work desks supplied with gas, water and air exhaust pipes for rapid filtration, a commodious hood to carry off noxious gases, apparatus for the determination of nitrogen by the Kjedahl method, a titration shelf and system of burettes, and a large still for the preparation of distilled water. The Station equipment also includes a balance table mounted on brick piers in contact with the ground, two Herzberg and Kuhlmann short beam automatic analytical balances, an Ainsworth No. 1 assay balance, two Springer torsion balances, a latest model Schmidt and Heensch triple-shadow polariscope, an imported mill for grinding samples, and over twelve hundred dollars worth of platinum ware.

The chemical department also has a good collection of 700 mineral specimens for class use, and a department library of 400 reference books and periodicals costing $2,000.

The gas supply for the department is furnished by a 200-light Matthews gasolene gas machine which is provided with an automatic mixer whereby the gas is kept uniform in quality.

The water supply is furnished by a deep well on the college grounds, the water of which is of much better quality than most of the well waters of the valley.

Fees. See article on "Fees and Deposits."



Department of Household Economics

Professor Haggart — Associate Professor Foster

THE purpose of this course is to interest young women in the life and well-being of the home by teaching such subjects as are of particular value to the home. These subjects have their foundation in the sciences of chemistry, physics, and biology and hence the latter find an important place in the course along with other subjects affording general knowledge and culture.

In the preparatory department cooking and sewing are taught with special reference to the development of manual skill and the correlation of the hand and brain. Throughout the course it is the aim to dignify the work of the home by the application of the arts and scientific knowledge to its management.

Model Book. Instruction in plain sewing, mending, darning, care and use of a machine and its attachments. A set of pieces is made, giving **C.** practice in basting, running, overhanding, back stitching, half back stitching, overcasting, felling bias seams, gathering and stroking gathers, putting on band, gussets, hemming, blind-hemming, hemstitching, whipped ruffle, chair, herringbone and feather stitching, buttonholes, loops, eyelets, patching flannel and cotton goods requiring matching of figures. Machine attachments are used in constructing a set of models giving practice in stitching, quilting, felling, hemming, gathering, putting lace, tucking, binding, underbraiding, etc.

Required of young women of Second Year Preparatory, second semester.

Plain Sewing. Simple drafting and making of undergarments. Each **B.** student is required to draft, cut and finish a skirt and drawers.

Required of young women of the Fourth Year Preparatory, first semester, 6 hours practice. Credit for college entrance .3 unit.

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Plain Sewing. This is a continuation of work of the preceding term. **A.** Each student will draft, cut and finish a corset cover and night gown.

Required of young women of the Fourth Year Preparatory, second semester, 6 hours practice. Credit for college entrance .3 unit.

Elementary Cooking. This course illustrates the fundamental principles of cookery; the effect of heat upon the various constituents; household fuels and their uses; construction and care of cooking utensils. It also includes the cooking of vegetables, cereals, eggs, and meat, with a few lessons on bread-making and pastries. **F.**

Required of young women of the First Year Preparatory, first semester, 4 hours practice.

Hygiene and Home Care of the Sick. The first part of the semester will be devoted to the study of the laws of health and right living. **E.** During the second part the simple home care of the sick will be studied.

Required of young women of the First Year Preparatory, second semester, 2 hours practice.

Plain Sewing. Each student is required to draft, cut, fit, and make **1.** an unlined dress. The sewing given in Preparatory Department is a prerequisite.

Required of all Freshmen in Household Economics courses, first semester, 6 hours practice. Credit .3 unit.

Dress Making. Each student is required to design, cut, fit, and make one wool skirt, lines or with drop skirt, and a lined waist. In connection **2.** with this work a system of drafting is studied. Plain Sewing (H. E. 1) is a prerequisite.

Required of all Freshmen in Household Economics course, second semester, 6 hours practice. Credit .3 unit.

Millinery. This course gives the student a practical knowledge of the **3.** foundation principles of millinery and involves the making and trimming of one hat.

Required of Sophomores in Household Economics course, first semester, 2 hours practice. Credit .1 unit.

'The mission of the ideal woman is to make the whole world homelike.''—Frances Willard.

Home Decoration. The aim of this course is to give such training in **4.** color and design as will lead to an appreciation of the beautiful, artistic, and suitable in the decoration of the home.

Agricultural College

Required of Sophomores in Household Economics course, first semester, 2 hours practice. Credit .2 unit.

Domestic Science. This course includes a study of food constituents, such as sugars and starches found in fruits, vegetables, and cereals; pro- **5.** teids in meats, milk, and eggs, and fats in butter, oils, etc. In practice work vegetables, cereals, fruits, eggs, and meat will be cooked.

Required of Sophomores in Household Economics course, second semester, 2 hours plus 6 hours practice. Credit .5 unit.

Domestic Science. This will be a continuation of the work of the previous year but will apply particularly to a study of manufactured pro- **6.** ducts like flour, beverages, etc. The relative cost of food will be considered throughout the term. At the beginning of the term, attention will be directed mainly to the preservation of food and the practice work will include canning and preserving. The cooking of batter and dough mixtures, with more complex dishes such as salads, pastries, cakes, candies, and frozen desserts, together with the serving of simple dinners will constitute the practice work. The previous work in Domestic Science is a prerequisite to this course.

Required of Juniors in Household Economics course, first semester, 2 hours plus 6 hours practice. Credit .5 unit.

Laundering. Hard and soft waters, soaps, washing fluids, bleaching **7.** powders, bluing, and starch are discussed in their scientific and practical relation to laundry work. Chemistry is a prerequisite.

Required of Juniors in Household Economics course, first semester, 1 hour. Credit .1 unit.

Dietetics. This course includes a study of the nutritive and dietetic values of food, hygienic combinations, uses of food in the body, and **8.** the planning of balanced dietaries. The practice work will include the cooking of more complicated dishes, together with the serving of breakfasts, luncheons, dinners, and teas.

Required of Juniors in Household Economics course, second semester, 2 hours plus 6 hours practice. Credit .5 unit.

9. *Textiles.* This course covers the study of fabrics, their beginnings in the arts and industries, the development of spinning and weaving, modern processes of manufacture, and their economic value.

Required of all Juniors in the Household Economics course, second semester, 2 hours. Credit .2 unit.

10. *Dietary Studies.* This course will include a study of foods adapted to the age, occupation, and physical condition of the consumer. The relation of certain foods to particular diseases will be taught and invalid cookery will form a large part of the practice work. Particular attention will be given to diets suitable for growing children and the proper feeding of infants.

Required of all Seniors in the Household Economies course, first semester, 3 hours plus 4 hours practice. Credit .5 unit.

11. *Home Nursing.* This course covers the home care of the sick, furnishing and care of a sick room, with the use of antiseptics and disinfectants. Lectures on emergencies and first aid to the injured are given by a physician.

Required of all Seniors in Household Economics course, first semester. 2 hours. Credit .2 unit.

12. *Household Sanitation and Management.* Sanitary construction and care of the house; sanitary, artistic, and economical household furnishings; judicious expenditures of incomes and the keeping of household accounts are the subjects considered.

Required of all Seniors in Household Economics course, second semester 5 hours. Credit .5 unit.

13. *Art Needle Work.* Embroidery, Roman Cut Work, English Eyelet, Jewel, Mount Mellick, Calcutta, and Hardanger embroidery; drawn work and lace making.

Elective to Young Women who have had the requisite preparation. Credit in proportion to time given to the subject.

Special Dressmaking. 14.

Elective to Seniors in the Household Economics course, throughout the year. Credit in proportion to time given to the subject.

Chafing-dish Cookery. Eighteen lessons in chafing-dish cookery will
15. be given.

Elective to students who have had sufficient preparation, second semester 2 hours practice. Credit .1 unit.

* * *

Equipment

THE sewing room is well equipped with all the conveniences necessary to the department: three machines, cutting and sewing tables, lap boards, sewing cabinets for holding samples of finished work, for storing supplies, etc. A fitting room is separated from the main room by portieres, and furnished with a wash stand, couch, and necessaries.

The kitchen laboratory is provided with individual gas stoves on desks fitted with small closed cupboards which contain the utensils needed constantly. It contains also general articles of furniture as refrigerator, cupboard, ranges, sink, and dining-table.

The library of the department contains a number of the best books on subjects pertaining to Household Economics, as well as the U. S. and State Experiment Station Bulletins. Use is being made of these constantly for text as well as reference books. The best charts, showing food values and cuts of meat, together with magazines related to the course, are included in the equipment.

* * *

Short Course In Practical Housekeeping

THERE are a large number of young women who, from lack of time and means, are unable to take an extended course of study but who desire to increase their usefulness by special training along certain lines. The teaching of this course will be intensely practical and adapted to the needs of such students. The course is open to all young women over eighteen years of age, previous education not being considered.

This course will open Jan. 4, 1909, and close March 26, giving a term of twelve weeks.

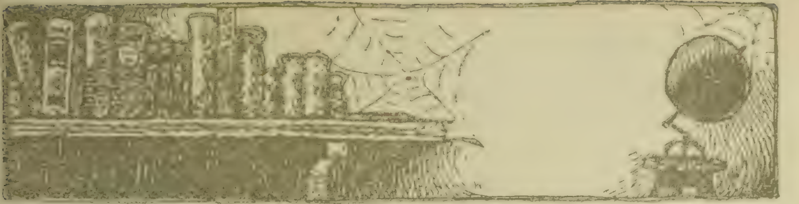
The cooking practice work will include vegetables, cereals, fruits, eggs, milk, meat, and the combination of these in batter and dough mixtures, cakes, pastries, etc. Practice in planning, cooking, and serving meals will be given.

In sewing each girl will make a model book and then a complete suit of underwear together with an unlined dress. Each student will furnish materials for her sewing.

During the course one period a day will be devoted to a reading course in English given under the direction of that department.

For one period a day, during the first half of the course, Home Nursing will be taught; and for the other half, Household Management will be considered. As very little outside study will be required, there will be time for those who so desire to take lessons in either piano or vocal music. For information concerning facilities offered in music see the Department of Music.

"I regard the discovery of a dish a far more interesting event than the discovery of a star."—Harion de Pennesey.



Department of English and History

Professor Macarthur
Miss Lewis

Associate Professor Daniels
Mr. Wilcox

THE courses in English aim at accomplishing two principal objects. The first is that of securing ease, clearness, and directness of expression; the second, that of promotion of culture. A fact which is gaining an ever wider recognition today is that no matter how well trained technically men or women may be, they will not be able to make satisfactory progress along professional lines unless capable of conveying their ideas to their fellow-workers, and of keeping in touch with the advances made in their professions. Hence it follows that throughout the course much emphasis is placed upon rhetoric; and not only upon its theoretical, but especially upon its practical side. Facility in writing is not to be acquired so much by the study of a book of rules as by the actual practice of writing. For this reason the courses in rhetoric require the continuous composition of themes which are carefully criticised and returned to the student for re-writing or revisal, as the case may demand.

The educated world of the present time has a much broader conception of the word profession than that of twenty-five years ago. Engineering—mechanical, civil, or electrical—and domestic science are now coming to be recognized as professions, and very properly so. But while the world is granting such a recognition and according a corresponding social status, it expects from the new professions that broad and general culture which was distinctive of the old. The study of literature has been admitted to be one of the foremost influences making for culture, and on this account it receives a deservedly prominent position in the work of the department.

English

"Who lacks the art to shape his thought, I hold,
Were little poorer if he lacked the thought."—Aldrich.

Moreover, for the further development of these same objects, this year sees the introduction of courses in Public Speaking and Expression. Such work has proved elsewhere to be a most valuable adjunct to the study of English in all its branches; and the lack of it heretofore in the college has been greatly felt.

A thorough course in bibliography and the use of standard books of reference is an especially valuable feature of the course offered by this department. Opportunity to pursue advanced work in English is offered to those students wishing to do so. No student whose knowledge of spelling and grammar is deficient will be admitted to college classes in English; and the department reserves to itself the right to examine in English, should it deem it advisable, any student entering college classes in English.

Composition—Literature. This course is primarily intended to pre-
1. sent to the student the principles of Composition and Rhetoric.
2. Special stress is laid upon written work. Selections from the best
English and American authors are used as models.

Required of all Freshmen, first semester, 3 hours. Credit .3 unit. Second semester, 4 hours. Credit .4 unit.

Elementary Bibliography. Classification and Reference. The principal schemes of classification and the arrangement of library catalogs
3. are explained, giving special attention to the methods employed in
the college library. A study is made of the general books of reference, such as dictionaries, encyclopedias, and periodical indexes; also of the special books of reference of the greatest importance. Library work consists of assigning subject headings to the magazines taken by the various departments, writing a few sets of cards, the practical use of the general reference books, and the preparing of general bibliographies on assigned subjects.

Required of all Freshmen, first semester 1 hour. Credit .1 unit.

Elementary Public Speaking. A discussion of the principles of
4, 5. Reading, Expression, and Public Speaking.

Required of all Freshmen, first and second semesters, 1 hour. Credit .1 unit each.

English Literature. **6, 7.** The History and Development of English Literature. A reading course, accompanied by lectures.

Agricultural College

Required of all Sophomores, first and second semesters, 4 hours. Credit .4 unit each.

Public Speaking. **8, 9.** Practical work in Reading and Expression.

Required of all Sophomores, first and second semesters, 1 hour. Credit .1 unit each.

Debating. **10, 11.** The principles of debating, accompanied by practical work.

Required of all Juniors, first semester, 2 hours. Credit .2 unit. Second semester, 1 hour. Credit .1 unit.

Advanced Bibliography. **12.** The purpose of this course is to train students in the methods of research. The use of general indexes is reviewed, including the indexes to government and state documents, and publications of learned societies. Each student prepares an extended bibliography, selecting his own subject. Regular students select subjects leading to their theses.

Required of all Juniors, second semester, 1 hour. Credit .1 unit.

Advanced Rethoric. **13, 14.** A theme course, with collateral study of models of English prose.

Required of all Seniors, except those in the Engineering courses, first and second semesters, 2 hours. Credit .2 unit each.

Technical English. **15, 16.** This course is designed to meet the needs of students desiring to pursue some special line of writing.

Elective for students of the Junior and Senior years, first and second semesters, 2 hours. Credit, .2 unit each.

Advanced Public Speaking. **17, 18.** Special work in Expression, Reading, and Public Speaking.

Elective to those who have completed English, 4, 5, 8 and 9, or their equivalent.

Preparatory Courses

Reading. **O.**

Required of First Year Preparatory students, first semester, 5 hours.

"Thought is the first faculty of man; to express it one of his first desires."—Abbe Royal.

English Grammar. N, M.

Required of First Year Preparatory students, first and second semesters, 5 hours.

Elementary Expression. L, K.

Required of Second Year Preparatory students, first and second semesters, 1 hour. Credit for college entrance .1 unit each.

Elementary English Composition. J, I.

Required of Second Year Preparatory students, first and second semesters, 4 hours. Credit for college entrance .4 unit each.

Elementary Expression. H, G.

Required of Third Year Preparatory students, first and second semesters, 1 hour. Credit for college entrance .1 unit each.

Advanced Grammar and Classic Myths. F, E.

Required of Third Year Preparatory students, first and second semesters, 4 hours. Credit for college entrance, .4 unit each.

Expression. D, C.

Required of Fourth Year Preparatory students, first and second semesters, 1 hour. Credit for college entrance .1 unit each.

American Literature. B, A.

Required of Fourth Year Preparatory students, first and second semesters, 3 hours. Credit for college entrance .3 unit each.

* * *

Equipment

THE general library of the college offers exceptional advantages to the students of this department. The library is not only the finest in this part of the Southwest, but, from the standpoint of the English student it can hold its own with many found in well known institutions in the East. It contains all the English masterpieces, and has a particularly large representation of American literature. In addition to this, its accessions include copies of all contemporary works which receive the favorable notice of the press. The most important literary magazines come regularly to it, and in this way the students have every opportunity of keeping themselves informed as to the most recent movements in the literary world.

There are several flourishing literary societies in the college, and students are urged to seek admission to these and to engage actively in their work.

A dramatic club has been formed under the auspices of the department and during the past year gave two eminently successful performances. The club has in its possession four sets of scenery and all the appliances for staging a modern play.

During the coming year some lectures devoted to art and travel will be given in connection with the work of the department. They will be illustrated by the large stereopticon recently bought by the college.

* * *

History

THE ends aimed at in teaching this subject are: (1) to acquaint the student with the most important facts of ancient, mediaeval, and modern history; (2) to aid him in interpreting these facts into the prevailing thought of the people at the time of the events; (3) to direct the students attention to such literature as will assist him in getting a vivid idea of the life of the times of which the history treats.

General History. **B.** The histories of Greece and Rome in outline.

Required of all Fourth Year Preparatory students, first semester, 3 hours.
Credit for entrance .3 unit.

English History. **A.** The history of England in outline.

Required of all Fourth Year Preparatory students, second semester, 3 hours.
Credit for entrance .3 unit.

General History. **1.** History of the Middle Ages.

Required only of Freshmen of the General course, first semester, 3 hours.
Credit .3 unit.

Agricultural College

2. *Advanced American History.* A study of the history of the United States from 1760 to 1865, with special reference to the leaders of the times, and of those men whose work has contributed most largely to the building of the nation as we now have it.

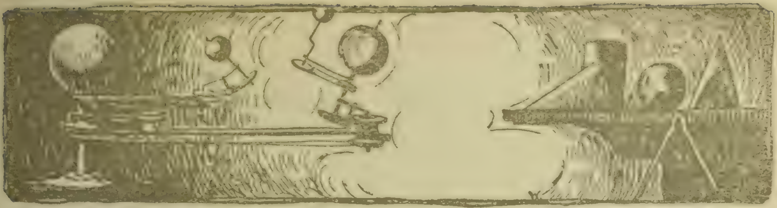
Required of Household Economics and General Seniors, first semester, 3 hours. Credit .3 unit.

* * *

Equipment

THE department of history is reasonably well equipped. It possesses MacCoun's Ancient and Classical Charts, MacCoun's Mediaeval and Modern Charts, Johnston's Imperial Chart of the World, Johnston's Imperial Map of Europe, Appleton's Universal Cyclopedia and Atlas, (12 volumes), Larned's History for Ready Reference, (5 volumes), and other works. The general library of the college contains a large collection of standard historical works, and also has in its possession a considerable amount of material which will serve the purposes of original investigation.

"History is philosophy teaching by examples."—Thucydides



Mathematics and Astronomy

Professor Hagerty Mr. Burkey

Solid Geometry. In order to add interest to the study of this subject
1. and fix in the mind the propositions demonstrated, many numerical and special exercises are given.

Required of all Freshmen, first semester, 3 hours. Credit .3 unit.

Trigonometry. Besides the ordinary text-book work, a few practical
2. problems are given that require students to use the surveyor's transit
3. for measuring both horizontal and vertical angles.

Required of all Freshmen (except those of the Agricultural course,) first and second semesters, 2 hours. Credit .4 unit.

Higher Algebra. Advanced work in the subject is taken up, including progressions, indeterminate equations, undetermined coefficients, the
4. binomial theorem (any exponent), permutations and combinations, variables and limits, series, and theory of equations.

Required of all Freshmen of the Engineering and General courses, second semester, 3 hours. Credit .3 unit.

Analytic Geometry. Loci and their equations, straight line and circle,
5. transformation of co-ordinates, parabola, ellipse, hyperbola, general equations of the second degree, and a few of the higher plane curves.

Required of all Sophomore Engineers, elective for all other students who have completed Mathematics 2, 3, and 4, first semester, 3 hours. Credit .3 unit.

"The study of mathematics accustoms the mind to demand perfect clearness, absolute precision, logical and concise sequence."

Differential and Integral Calculus. The topics treated are those usually taken up in accordance with well established usage; and many
6. practical problems from mechanics are solved by the student in
7. order to maintain his interest, and to fix in his mind the principles which have been explained and studied.

Required of all Engineers, elective for all other students who have completed Mathematics 5, second semester Sophomore and first semester Junior year, 3 hrs. each. Credit .6 unit.

General Astronomy. Not only astronomical facts and principles are studied, but the methods by which these facts have been obtained are
1. also considered. Night observations constitute an important part
2. of the work of the course. The text-book is Young's General Astronomy.

Required of Juniors of the General and Household Economics courses throughout the year; and of the Seniors of all Engineering courses the second semester; elective for all other students who have completed Mathematics 2 and 3, and Physics 1, 2, 3, and 4; first semester, 4 hours; second semester, 3 hours. Credit for first semester .4 unit; for second semester, .3 unit.

Preparatory Mathematics

Arithmetic. In this class the students complete the entire text with
H. thorough reviews, and in order to enter the class, the stu-
G. dent must be ready to enter the work taught in the eighth grade.

Required of all First Year Preparatory students throughout the year, 5 hours.

Elementary Algebra. Beginning work in the subject, with an ele-
F. mentary text.

Required of all Second Year Preparatory students, first semester, 5 hours, Credit for college entrance, .5 unit.

Higher Arithmetic. A general review of the more difficult portions
E. of the subject and a consideration of topics not previously studied.

Required of all Second Year Preparatory students, second semester, 5 hours. Credit for college entrance, .5 unit.

"To a far greater extent than any other science astronomy enlarges the mind and gives a true conception of the relation of man to his physical environment."

Algebra. A general review from the beginning of algebra to involution;
D. evolution, theory of exponents including logarithms, radicals,
C. quadratic equations, inequalities, ratio, proportion, and variation. Text-book, Milne's Academic Algebra.

Agricultural College

Required of all Third Year Preparatory students throughout the year, 5 hours.
Credit for college entrance, 1 unit.

Plane Geometry. The work in this course is the usual high school
B. treatment of the subject, much of the time being given to original
A. exercises.

Required of all Fourth Year Preparatory students throughout the year, 5 hours.
Credit for college entrance, 1 unit.

* * *

Equipment

THIS department has a portable equatorial telescope with 4½ inch objective and magnifying powers ranging from 50 to 400; planetarium, star lantern with slides, star atlases, planisphere, 24-inch slated globe, trigonometer, Kennedy's dissected geometrical blocks; a surveyor's compass, three transits, one of which has a gradienter and all have solar attachments, engineer's level, plane table, protractors, aneroid barometer, optical square, planimeter, pantograph, chains, tapes, leveling rods, poles, pins, Fuller's spiral slide rule, and Bausch and Lomb-Zeiss stereo-binocular magnifying 7½ diameters.

Students will be held responsible for all equipment used by them, and any loss or breakage must be made good to the college.

The department library contains many valuable books of reference, and several periodicals.

Department of Mechanical and Electrical Engineering

Professor Sage
Asst. Prof. Schaphorst
Mr. Berkey

TWO courses are offered in this department: Mechanical Engineering, a four year course leading to the degree of Bachelor of Science in Mechanical Engineering; Electrical Engineering, leading to the degree of Bachelor of Science in Electrical Engineering. The two courses are very closely allied and are therefore identical for the first two years. They differentiate at the beginning of the junior year, each class pursuing separately those subjects pertaining to its particular branch, while some studies remain common.

* * *

Mechanical Engineering

INSTRUCTION in this course is given by lectures, recitations, and practice, so combined as to constitute a symmetrical course of study. The endeavor is to provide the student with a broad foundation of general and theoretical knowledge, together with a liberal amount of practice in the line of his chosen profession.

Much time is necessarily devoted to higher mathematics and to technical subjects; yet certain fundamental studies, necessary to a broad and liberal education, such as physics, chemistry, languages, literature, and political economy, are provided for.

The student is given a thorough training in the theoretical branches underlying the science of machines, together with a clear understanding of the practical construction of mechanical devices.

Shop practice offers practical illustrations of the precepts taught in the class room, and is a most essential part of the Mechanical Engineering Course.

The practice is supplemented by lectures on the care and use of the various tools, machines, and materials used in the mechanical engineering profession.

Mechanical Drawing. Instruction in the use and care of drafting in-
1. struments, exercising in geometrical construction, lettering, plane
2. projections, shading, and colouring; followed by detail and as-
3. sembled working of machinery with tracings and blue prints
therefrom.

Required of all Engineers Freshman first and second semester, 4 hours practice each semester. Credit .2 unit each.

Machine Design. Mechanical Drawing is merged into Machine De-
sign, of which it forms an important part, and affords constant oppor-
4. tunity for further practice in making drawings of standard types
5. of machinery. The work in this subject consists chiefly in the
design of the elements of machines, such as bolts, rivets, riveted joints,
journals and bearings, pulleys, gears, cams, etc., also the complete de-
sign of a steam boiler.

Required of Junior Mechanical and Electrical Engineers, second semester, 8 hours practice and Senior Mechanical Engineers first semester 4 hours practice. Credit .4 unit and .2 unit.

Descriptive Geometry. In this subject the principles of orthographic
projection, development of lines and surfaces, etc., are fully discussed
6. in the class-room, and a great variety of problems, illustrating
both general and special cases, are solved and constructed in the
drafting room.

Required of all Sophomore Engineers first semester, 3 hours. Credit .3 unit.

Elementary Mechanics. In this subject the general laws of statics
and dynamics are studied with reference to solids, liquids and gases,
7. and the fundamental principles are applied to the solution of a
wide range of problems.

Required of all Junior Engineers, first semester, 3 hours. Credit .3 unit.

"The technical school has given this country a class of young men the like of which are seen nowhere else in the world. A famous English iron and steel man said to me not long ago, 'It is not your immense ores nor your great mills that impress me most, but the class of young men that you have in the iron industry here. We have no such corresponding class in England.'"—Carnegie.

Mechanism. Under this head are studied the principles underlying
the action of the elementary combinations of which all machines are
8. composed: the communication of motion by gear wheels, belts,
cams, screws, link work, etc.

Required of Junior Mechanical and Civil Engineers, first semester, 3 hours. Credit .3 unit.

Graphic Statics. This subject treats of the solution of engineering
9. problems by means of drafting room methods, and the design of
roof and bridge trusses by simple but accurate methods.

Required of all Junior Engineers, 2 hours. Credit .2 unit.

Steam Boilers and Engines. Under this head the principles under-
lying the construction of the various forms of steam boilers are studied.
10. Attention is given to the various details in their design or opera-
tion, such as the size of flues, thickness of plates, styles of riveting, brac-
ing, the amount of grate and heating surfaces, etc., as well as to various
attachments.

The student makes a study of the general principles of the steam engine and of the various types in common use, and investigates the many problems relating to their structure and efficiency.

Required of Junior Mechanical and Electrical Engineers, second semester, 3 hours. Credit .3 unit.

Applied Mechanics. The work of the first team in this subject em-
braces a study of the laws of equilibrium, motion, work, and energy, as
11. applied to particles and rigid bodies; also a study of the center
of gravity and the moment of inertia. The stresses in the steam engine
are investigated and the subject of friction is carefully taken up.

Required of all Junior Engineers second semester, 3 hours. Credit .3 unit.

Applied Mechanics. The second term work in the subject considers
the conditions of stress, strain, and elasticity of materials. Bending
12. moments in beams are investigated under various conditions of
loading, and the strength of building materials is very carefully looked
into. Bridge and roof trusses are discussed, and the stresses in structures
are figured. Experiments to determine the strength of different building
materials accompany recitations.

Required of all Senior Engineers, first semester, 3 hours. Credit .3 unit.

Engineering Power Plant. The work in this subject consists of the investigation of the sources of power and a comparison of the relative
13. merits of each. Most economical arrangements are considered. The application of electricity to power, lighting, street railway work, and mining work is also considered.

Required of Senior Mechanical and Electrical Engineers second semester, 3 hours
Credit .3 unit.

Thermodynamics. This subject treats of the solution of problems involving the action of heat as applied to steam engines, gas engines, and
14. other thermal motors. The use of compressed air and refrigerating machines is also thoroughly discussed, so that the student may become familiar with present day practice.

Required of Senior Mechanical and Electrical Engineers second semester, 2 hours
Credit .2 unit.

Engineering Structures. This subject embraces a study of the design
15. and construction of foundations and superstructures, the selection of materials, superintendence, specifications, etc.

Required of all Senior Engineers, first semester, 3 hours. Credit .3 unit.

Engineering Laboratory. In this subject tests are made with the engine and boiler plant, both with and without the electric plant in con-
16. nection. Tests are also made on gasoline engines, air compressor, determination of moisture in steam, etc. Steam gauges are accurately tested, and the student is given a careful training in engineering practice.

Required of all Senior Engineers, 4 hours practice. Credit .2 unit.

Mechanical Engineering Laboratory 17. Continuation of course 16.

Required of Senior Mechanical Engineers, second semester, 2 hours practice
Credit .1 unit.

Woodwork and Forging. Bench work in wood: sawing, plan-
18a. ing, gauging, chiseling, boring, dovetailing, fitting and join-
18b. ery; construction, care and use of tools. Lectures and practice.

Forging. Care of fire heating, drawing out, bending up, setting, swaging, welding, tempering, and annealing, tool making and dressing.

Required of all Engineering Freshman first and second semester, 6 hours practice
Credit .6 unit.

"True living consists in doing the greatest amount of work with the greatest possible pleasure in the least possible time."
—Alvin Davison.

Agricultural
College

19. *Pattern Making and Foundry Practice.* Pattern and core boxes for the molding of simple machine parts. Mixing and tempering molding and core sands; molding in green and dry sand, skin drying, making and drying cores.

Required of Sophomore Mechanical and Electrical Engineers, second semester, 6 hours practice. Credit .3 unit.

20. *Bench Work in Iron.* Laying out work, chipping, filing, fitting, scraping, polishing, key-seating, drilling and tapping, hand work with machine tools.

Required of Junior Mechanical and Electrical Engineers, first semester, 4 hours practice. Credit .2 unit.

21. *Machine Shop.* Advanced machine shop practice; production of finished machine elements.

Required of Junior Mechanical and Electrical Engineers, second semester, 4 hours practice. Credit .2 unit.

22. *Wood Turning.* Various exercises in turning between centers; face plate, chuck work, and ornamental turning.

Required of all Junior Engineers, first semester, 4 hours practice. Credit .2 unit.

23. *Mechanical and Electrical Construction.* Repairs on dynamos and motors, winding armatures and field coils; electric wiring and making switches and rheostats, babbitting and boring out bearings, brazing and tinning, sheet metal work.

Required of Junior Mechanical and Electrical Engineers, first semester, 2 hours practice. Credit .1 unit.

24. *Contracts and Specifications.* A course of lectures giving the student a knowledge of contracts as applied to engineering work, together with instruction in writing up specifications for different kinds of work.

Required of Senior Mechanical and Electrical Engineers, second semester, 1 hour Credit .1 unit.

25. *Metallurgy of Iron and Steel.* Study of the types and geographical distribution of the various iron ores of the United States; construction and operation of the blast furnace, grading of pig iron, and valuation from market quotations; manufacture of wrought iron and

steel; Bessemer and open hearth, acid and basic; constituents and manipulation of self-hardened tool steels. Lectures and assigned papers.

Required of all Junior Engineers, second semester, 1 hour. Credit .1 unit

Gas and Oil Engines. A study of the theory, design and operation
26. of the different types and cycles of gas and oil engines.

Required of Senior Mechanical Engineers, second semester, 1 hour. Credit .1 unit

Seminar. Review of current engineering periodicals, abstracts and
27. reports of papers.

Required of all Senior Engineers, first and second semester, 1 hour. Credit .2 unit

Engine and Dynamo Practice. Operation and care of steam, oil,
28. and gasolene engines, boilers and electrical machines; valve setting and indicator practice.

Required of two year Mechanical and Electrical students, second semester, 2 hours practice, second year,

* * *

Electrical Engineering

THIS course is arranged to supply the demand for men who have a practical knowledge of electricity, as well as a thorough knowledge of the principles and laws governing the forces with which they have to deal. For the first two years the course is identical with the Mechanical Engineering course, but branches out separately during the third year. This is for the reason that the two courses must through necessity run nearly parallel, as a well equipped electrical engineer must also be a mechanical engineer, and must have some training in the principles of steam and hydraulics.

To meet the demands of the technical work in this rapidly advancing branch nothing but the most thorough course in the fundamental facts and principles of the science of electricity can prove satisfactory. Hence a thorough drill by means of text-books and an extended series of experiments in the laboratory with exact instruments form the necessary preparation for the latter work. Particular attention is given to the designing of electrical machinery and to the investigation of advanced problems in electricity.

30. *Elements of Electrical Engineering.* This subject treats of the elementary points of Electrical Engineering, giving the student a firm foundation for his future work. Current electricity, potential, resistance, quantity, induction, hysteresis, elementary principles of the dynamo and motor, etc. are treated in detail.

Required of Junior Electrical and Senior Mechanical Engineers, first semester, 3 hours. Credit .3 unit.

31. *Dynamo—Electric Machinery.* The theory and construction of continuous current generators and motors.

Required of Senior Electrical Engineers, first semester, 3 hours. Credit .3 unit.

32. *Alternating Currents.* Includes a study of alternating currents and alternating current machinery by mathematical and graphical methods; construction, regulation, and operation of single and polyphase generators and motors, transformers, and rotary converters.

Required of Senior Electrical Engineers, second semester, 2 hours. Credit .2 unit.

33. *Dynamo Design.* This subject considers the materials of construction and methods of armature winding, followed by the design of some form of dynamo together with the complete calculations for same.

Required of Senior Electrical Engineers, first semester, 4 hours practice.
Credit .2 unit.

34. *Electric Power Transmission.* The methods of economical distribution of electrical energy for light and power purposes; insurance rules and regulations; alternating current transmission of power; characteristics and properties of transmission lines; construction and protection; management; economics of design and regulation; single and polyphase systems; high-potential and long-distance applications.

Required of Senior Electrical Engineers, second semester, 1 hour. Credit .1 unit.

35. *Electrical Engineering Laboratory.* Experimental study of characteristics and properties of direct and alternating current generators, and motors; methods of testing, theory of instruments; efficiency, regulation, etc., with complete reports.

Required of Senior Electrical Engineers, second semester, 2 hours practice.
Credit .1 unit.

> *"In the schools of applied science and technology, as they are carried on today in the United States, involving the most thorough and scholarly study of principles directed immediately upon the useful arts, and rising in the higher grades into original investigation and research, is to be found almost the perfection of education for young men."*
>
> *—Francis A. Walker.*

A Two Year Mechanical and Electrical Certificate Course

THIS course is established to meet a demand for special training in the elements of engineering and mechanical technology on the part of an increasing number of young men engaged as artisans, draughtsmen, and engineers in the mechanical industries and trades. It will be found adapted also to the requirements of those in charge of power plants of manufacturing and other industries and of central station men engaged in electric light, power, mining, and railway work.

A certificate of proficiency will be given the student upon satisfactorily completing the work of the several branches.

If at any time the student should return to the College to become a candidate for a degree in Mechanical or Electrical Engineering, he should first complete the entrance requirements for admission to this degree course as set for that year. He will then be admitted as a candidate for a degree.

Following this he will take such studies as are set forth in the regular four-year course required for the degree, but he will be given credit for similar or accepted equivalent courses of study previously passed in the two-year course. He will not be required to pursue any of the previous two years of work the second time.

He will be admitted to such advanced standing as he may be entitled to in the regular four-year course.

While there are no educational requirements for admission to this course, the student must be at least sixteen years of age, and show his fitness for the work.

* * *

Equipment

THE department has two commodious buildings devoted to its work. One has rooms for a forge shop, foundry, and storage; the other contains two recitation rooms and a hall, an engine and boiler room, and rooms for wood work and machine work.

An excellent department library containing standard works pertaining to the engineering professions is accessible to students.

Mechanical and Electrical Laboratory

The power equipment of the college consisting of the following engines, boilers, etc., affords opportunity for investigation by the students, on the subject of steam and steam engine practice:—one 40 horse-power tubular boiler, one 50 horse-power Hoppes feed water heater and purifier, one duplex steam pump, one 30 horse-power Weston automatic engine, one 8 horse-power Shipman engine and boiler, one 13 horse-power Priestman oil engine, one 15 horse-power Witte gasoline engine, one air pump and reservoir. The equipment also includes indicators for steam and oil engine testing, one standard steam gauge tester, three planimeters, a gas meter, two calorimeters, one tachometer, one Olsen testing machine of 60,000 lbs. capacity with full equipment for tension, compression, and transverse tests; one 9 K.W. direct current dynamo compound wound; one 7 K.W. direct current dynamo shunt wound; one 2 K.W. rotary converter for direct and alternating current work; complete switchboard equipment as well as portable instruments for direct and alternating currents.

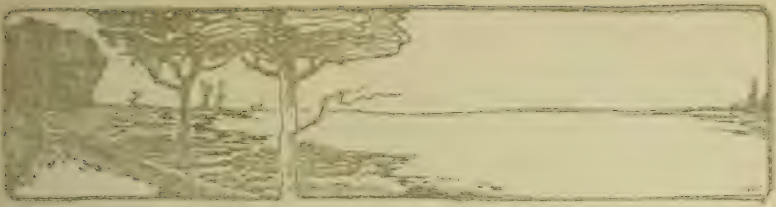
The Machine Shop has one 16-inch x 6-foot tool room lathe with compound rest and taper attachment, one 14-inch x 8-foot standard engine lathe, one 12-inch x 5-foot standard engine lathe, one 13-inch standard engine lathe, one 24-inch x 24-inch x 6-foot planer, one 14-inch shaper, one 22-inch power drill-press, one sensitive drill, one gas pipe threading and cutting off machine, one power hacksaw, one improved double wheel emery grinder; also a large number and good assortment of drills, chucks, small tools, and machine attachments.

The Wood-working Shop contains fourteen benches, six 10-inch lathes, one 18-inch x 10-foot lathe, with over-hanging face-plate capable of turning work up to 80 inches in diameter, one combination rip and cross-cut circular saw, one Fox trimmer, one large grindstone with Brown and Sharp frame, and a good supply of small tools and appliances.

In the forge shop are twelve forges of the latest down-draft model with improved underground arrangements for the blast and exhaust pipes, one forge being equipped with a hand blower.

Each forge is fitted with a full set of hammers, tongs, swages, fuller, etc. An 18-inch hand-power drill press and a punching and shearing machine form a part of this equipment.

The foundry has a brass furnace, the usual small tools, and a number of flasks for moulding.



Department of Civil and Irrigation Engineering

Professor Fleming **Professor Hagerty**

IN the arid West necessarily one of the most important problems before the civil engineer is that of the development, conservation, and use of the limited water supply. Consequently the study of irrigation, both from the engineering and agronomical standpoints together with hydraulics and water power problems, is given particular emphasis in the course as planned, although a sufficient number of other subjects are taught to give the student a fairly broad view of the various branches of engineering and enough preparation in the fundamentals to take up engineering work of any character if supplemented later by further private study and observation in the special line of work followed. Since civil engineering and other branches of engineering overlap to a considerable extent many of the subjects included in this course will be found listed under Mechanical Engineering, while the various courses in surveying will be described under Mathematics. Following is a brief synopsis of the subjects taught in the department of Civil and Irrigation Engineering.

Surveying. **1.** The instruction in this subject will be such as to render the students familiar with the principal instruments and methods used in plane surveying. Levels will be run, surveys made, notes plotted, and areas computed. Students will have practice in determining the true meridian and latitude, by observation of the north star and of the sun.

Required of all (except Household Economics) Sophomores, first semester.

6 hours practice. Credit .3 unit.

"The question of irrigating the arid but irrigable portion of our public domain is destined to become a leading one." — Science.

Agricultural College

Topographical and City Surveying. This course includes topographical surveys with the plane table and with the transit and stadia; 2 and a city survey consisting of the division of a tract of land into city blocks and subdivision into city lots, grade lines for streets, and the location and grade of a water main or sewer. A map, tracing, and blue print of each survey is required.

Required of Civil Engineering Sophomores, second semester, 1 hour plus 8 hours practice. Credit .5 unit.

Railway Surveying. This course includes the theory and practice 3. of laying out simple, compound, reversed, and transition curves, 4. and a complete survey (reconnaissance, preliminary survey, location, and cross-sectioning) of a line several miles long.

Required of Civil Engineering Juniors, first semester, 1 hour plus 4 hours practice, second semester 1 hour plus 8 hours practice. Credit .8 unit.

Engineering Office Work. This work will include the plotting of field notes of railway surveying, the computation of earthwork, and **5.** estimates of cost of construction, etc.

Required of Civil Engineering Juniors, second semester, 8 hours practice. Credit .4 unit.

Irrigation Practice. Hitherto such studies of irrigation as have been taught in the schools have dealt with the subject almost entirely from 6. the engineer's standpoint and the disposal of the water after leaving the reservoir or canal has been considered a matter of but small concern or at least of so little importance as to require nothing but a brief and more or less superficial treatment. Irrigation development has, however, so far progressed over the larger part of the arid West that haphazard and loose irrigation practice is no longe considered profitable. Water is reaching an economic value sufficient to justify considerable care in its distribution and use and the adoption of scientific methods as a conservative business policy is gaining the approval of progressive agriculturists and irrigation companies throughout the West. Men are therefore in demand who have the knowledge of how most successfully and economically to use the water which the engineer has made available by his canals and reservoirs. These men must be acquainted with the most economical methods of conveying the water to the point of use and they must know the best time and manner to apply it. While such requirements border somewhat upon the qualifications of the irrigation engineer, they are evidently more closely re-

Agricultural College

lated to those of the agriculturist. It has, therefore, been deemed advisable to include a set of studies in the Agricultural course which would supply such information on irrigation as is required by the skilled irrigation farmer and which would aid the agricultural student in preparing himself for the work indicated. Such a course should be conducted both in the class room and field and the work is, therefore, divided as follows:

Class Room. One hour per week during the second semester will be devoted to an elementary discussion of the laws governing flow of water as applied to its measurement by weirs, rating flumes, etc.; the estimation of the amount of water required by the several crops as modified by various local and climatic conditions, and with some reference to related questions of plant growth and the movement and amount of soil moisture; the laying out and construction of laterals for the conveyance of water to the farm and the various methods of distribution of this water with a discussion of their relative advantages and applicability to different soils, crops, and topography; a discussion of the methods of conservation of soil moisture and of irrigation practice in various localities which have resulted in increasing the duty of water; a brief treatment of the methods of developing and utilizing individual water supplies (as by pumping from the underground flow) from the standpoint of the equipment advisable, its cost, and the relation of various expenses incident to operation, and, finally, a brief study of drainage as related to irrigation, discussing the causes leading to the necessity of drainage in arid countries and the means employed for ameliorating the condition of swampy and alkaline land.

Field. The equivalent of two hours per week, in measuring the discharge of actual canals and laterals by weir and current meter methods, and of laying out a lateral and distribution system, a survey being made and studied to determine the most favorable method of procedure.

Required of Agricultural Juniors, second semester, 1 hour plus 2 hours practice.
Credit .2 unit.

Hydraulics. After a brief discussion of the subject of hydrostatics
in connection with its bearing on the construction of dams, headgates,
7. and other structures subjected to water pressure, the phenomena
of the flow of water under various conditions are considered in de-

tail, water measurement by orifices, weirs, piezometers, and current meter being described, especial attention being directed to the empirical nature of hydraulic formulae and to the conditions necessary to be observed in their use. The college is well provided with current meters and weirs and unusual opportunities are available for hydraulic work on the canals in the vicinity, or any of the three large irrigation pumping plants which are now in operation on the college grounds.

Required of all Senior Engineers, first semester, 3 hours. Credit .3 unit.

Drawing and Designing. The design of some simple structures
8. such as flumes, headgates, dams, diversion weirs, etc.

Required of Civil Engineering Seniors, first semester, 4 hours practice.
Credit .2 unit.

Irrigation Engineering. After a preliminary discussion of the methods by which plants grow and feed and of the role played by water in
9. the vital processes of the plant, the student is introduced to the study of what has come to be meant by the "duty of water;" all the recent data on that subject are used, and the bearing upon estimates of the amount of water needed by irrigated districts is shown. Following this comes a discussion of rainfall and runoff, particular attention being paid to the intensities of storms as effecting reservoir design, especially in the Southwest.

Then follows a study of the design of canals and ditches, dams, reservoirs, wasteways, flumes, inverted siphons, and other special types of structures, existing examples being explained and illustrated. Pumping plants are considered with reference to the type of machinery to use for special conditions, the economics of pumping for irrigation being briefly taken up. The irrigation laws of the West are explained in so far as they relate to the acquirement of water rights and to the legal restrictions surrounding the construction of irrigation works. The course consists of lectures supplemented by reference to Wilson's "Irrigation Engineering," Schuyler's "Reservoirs," and various reports and bulletins of the Office of Irrigation Investigations.

Required of Senior Civil Engineers, second semester, 3 hours. Credit .3 unit

10. *Irrigation Field Work.* In connection with the work of the class room it is desirable to give some practice work in the field. To this end a topographic survey is carried on from which a reservoir and small distribution system is designed. Practice is also given in the use of the current meter on the canals in the vicinity.

Agricultural College

Required of Senior Civil Engineers, second semester, 4 hours practice
Credit .2 unit.

11. *Bridge Design.* Considerable practice is first given in the solution by graphics of problems involving forces in equilibrium, after which problems are given involving the determination by graphics of moments and shears, this being followed by the design of some simple structures such as a plate girder, a steel viaduct, etc.

Required of Civil Engineers, second semester, 4 hours practice. Credit .2 unit.

Equipment

Besides the apparatus of the department of Mathematics, which is available for the work of this course, this department also has the following instruments: Four water meters, hook gauges, weirs, automatic depth recorders, 1 additional transit, architect's level, 1 farm level, and all necessary drawing instruments.

"The investigation of the duty of water is one of the most complicated problems of irrigation."—Encycl. Americana.

Political Economy and Psychology

President Garrison

Political Economy

Political Economy. In this subject the student is made sufficiently acquainted with the economic conditions affecting public questions of
1. the day, particularly in the United States, to judge of them in-
2. telligently. Public questions and the economic principles which
underlie them are presented in such a form as to make them attractive and easy to understand. Application of the principles of political economy is made to the leading questions of the day, such as socialism, taxation, the national debt, free trade and protection, bimetalism, United States notes, banking, the national banking system, the labor problem, and co-operation.

The first half of the term is given to a study of principles and the rest to their application to practical questions. The whole course is interspersed with problems intended to stimulate the student to think out the application of the principles for himself. Among the subjects considered are the following: principles that control the production of wealth and inquiries as to the possibility of increasing wealth; investigation of the causes that give value to what is produced and explanation of the methods by which products are exchanged for each other by means of money and various forms of credit; questions pertaining to the distribution of what has been produced among the persons who have had a share in the production, that is, the principles which govern the respective sum which each party to the production, the laborer and the capitalist, should receive out of the total amount. Laughlin's Elements of Political Economy is used as a text-book.

Required of Seniors of the Agricultural Course, and of Juniors in all other courses throughout the year, 3 hours. Credit 6 unit

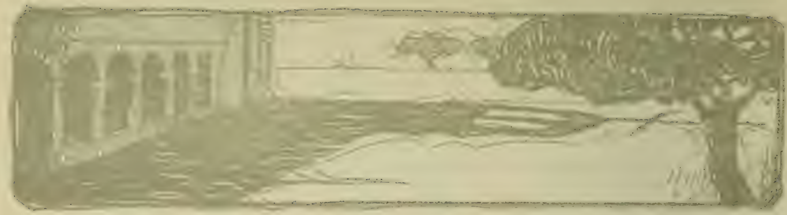
"The good of each tends to the good of all, as the good of all tends to the good of each." Bastiat.

Psychology

Psychology. This course is intended to give a general knowledge of Elementary Psychology. It includes the following subjects: structure
1. and functions of the sense organs and the nervous system; consci-
2. ousness and attention; sensations, their classification and analysis; perception and its cultivation; association of ideas and cultivation of memory; imagination and its culture; concept, judgment, reasoning, and thought culture; feeling, emotion, and the formation of correct emotional habits; the will, its foundations, types of action, development and cultivation. Angell's Psychology is used as a text-book.

Required of Domestic Science and General Seniors first semester, 3 hours, second semester 2 hours. Credit .5 unit.

"Without present evidence it may be affirmed that not only has life preceded organization but that consciousness was coincident with the dawn of life." — *E. D. Cope.*



Department of Latin and Modern Languages

Professor Hoblit

IN FOREIGN language work courses are offered in this institution in Latin, Spanish and German. The aim is to introduce the student to the grammar and to give him a practical command of the languages, the chief emphasis being placed upon such a knowledge as will enable him to read and understand the foreign language with facility and to express himself in it with correctness.

* * *

Latin

THE work in Latin is confined to the preparatory school, a two years' course being offered. This work is required of all students who wish to qualify for college in the General and Domestic Science courses.

Elements of Latin. The first year's work consists principally of study
of grammar with exercises for drill on forms and for illustration of
D. rules of syntax. During the first semester particular attention
C. is given to pronunciation and inflections; during the second semester syntax is studied in connection with continued drill on forms and easy exercises in reading and translation.

Required of all Third Year Preparatory Students who do not elect some applied science, throughout the year, 5 hours. Credit for college entrance, 1 unit.

Latin Readings. The second year is given to careful reading of the
first four books of Caesar's Gallic Wars. Book I is very carefully
B. studied during the first semester, inflections are reviewed, and
A. syntax and word order receive special attention. The second semester is passed in more rapid reading of Books II-IV. Prose composition based upon the text is practiced throughout the year.

Required of all Fourth Year Preparatory students who do not elect some applied science, throughout the year, 5 hours. Credit for college entrance, 1 unit.

Spanish

THE work in the Spanish course is designed to ground the student in the correct use of the language by the study of grammar, careful reading of selections from modern authors, and practice in writing and speaking. Owing to the large number of students at this college who speak Spanish as their mother-tongue, those who desire to learn to speak enjoy here unusual advantages. Two years' work is offered.

Elements of Spanish. The work of the first year consists largely of study of the grammar with a considerable amount of easy reading.
1. Pronunciation and inflections are the principal objects of study
2. during the first semester. The second semester is occupied with
reading of selections from Gil Blas or other prose, study of syntax, practice in translating, writing and speaking.

Required of Sophomores of the General and Household Economics Courses, who do not elect German, throughout the year, 5 hours. Credit 1 unit.

Spanish Readings. During the second year the work consists largely of reading of stories, dramas and prose matter designed to familiarize
3. the student with the words and phrases of every day life. The
4. first semester is given principally to novels, with practice in translation and speaking. The second semester is occupied mainly with reading of several modern plays, with practice in writing and speaking.

Required of Juniors of the General and Household Economics courses who do not elect German, throughout the year, 5 hours. Credit 1 unit.

* * *

German

A TWO years' course is offered in German, the aim being to fit the student for practical work in reading and translating and with some ability to speak the language.

Elements of German. The course in German follows substantially

"We have learned that the round-about course, through other tongues, to the mastery and comprehension of our own, is the shortest."—William Dwight Whitney.

the same plan as that in Spanish. First semester, study of
1. pronunciation, inflections and practical exercises in reading and
2. writing. Second semester, easy reading, with study of syntax,
practice in translating and speaking.

Required of Sophomores of the General and Household Economics courses who do not elect Spanish, throughout the year, 5 hours. Credit .1 unit.

German Readings. The work is similar in general character to that
3, 4. in Spanish. First semester, stories and ballads. Second semester, plays and practical work in language of every day.

Required of Juniors of the General and Household Economics courses who do not elect Spanish, throughout the year, 5 hours. Credit .1 unit.

Military Science and Tactics

Colonel Edwards

THE primary object of this department is to furnish the country each year with a class of young men who are fitted to become efficient officers of volunteers in time of war.

For this reason the department is fostered by the United States government, and is practically maintained by it without expense to the college.

The professor is an office of the army detailed for this duty by the President of the United States, and the equipment—of the value of about five thousand dollars—is issued to the college by the War Department. It includes two pieces of artillery with their accompanying limbers, cadet rifles and bayonets, belts, cartridge-boxes, and a yearly allowance of ammunition for target practice.

The military course is required to be taken by all physically qualified male students of the college and preparatory department in regular or special classes, or courses in Agriculture, Practical Mechanics, and Stenography, except juniors, seniors, and graduate students. In exceptional cases college students, in their sophomore year, who have pursued the military course satisfactorily for three years may be excused from the regular work of the course by a vote of the faculty; but such students must continue to wear the cadet uniform, and may be required to drill or parade on special or ceremonial occasions until they have attained junior standing.

The department offers the following comprehensive course of instruction:

Practical. Infantry drill regulations, through the school of the battalion in close and extended order. This includes the ceremonies of

> *"There is no study in the academic course which I would not suppress sooner than give up the military drill."*
>
> *Andrew D. White.*

battalion parade, review and inspection, guard mounting, and escort of colors, marches, outposts, advance and rear guards, etc.

Field service regulations.

Manual of guard duty.

Firing regulations for small arms, with target practice at ranges from one to six hundred yards.

Theoretical. This includes the portions of the above subjects covered by the practical instruction, and may be supplemented by lectures.

Aside from its probable benefit to the country in time of war, this course is of great and immediate value to the individual student. The drills and exercises are mild forms of physical training, giving an erect and graceful carriage and correcting the bad habits of body to which students are prone. But their chief value to the student lies in the mental and moral discipline they afford, for, by their practice, he acquires the habit of self-control, respect for authority, and the fitness to exercise it. The uniform is of standard cadet gray woolen cloth, and consists of cap, modeled on the army pattern, blouse, and trousers cut in the West Point cadet style.

Active members of the cadet corps are required to wear the uniform at all military formations, with white Berlin gloves, and plain white standing collar.

The uniform—cap, blouse, and trousers—costs from fifteen to sixteen dollars; Berlin gloves twenty cents a pair. The cadet will require four pairs of gloves for the school year; these are washed with the weekly laundry.

Uniform

Each student classified for the military course will be required to deposit with the Registrar the amount necessary to purchase a complete uniform when he commences this work.

The uniform of the college may be worn by any male student in good standing. When worn it must be in a military manner, shall be complete, not combined with articles of civilian clothing, and in the case of students not active members of the Cadet Corps, it is not to be accompanied by any insignia of rank in the Corps. But this prohibition shall not apply to special social or ceremonial occasions when it may be desired to show former membership and rank.

Officers of the Battalion of Cadets

Field and Staff

Major, Arthur F. Fraker; Captain and Adjutant, Stuart K. Baker; Chief Trumpeter, John Powers; Color Sergeant, Emile P. Carrera; Quartermaster Sergeant, Burt Howell.

COMPANY OFFICERS

COMPANY A

Captain, E. J. Wilson
First Lieut., J. C. Longbottom
Second Lieut., R. Russell
First Sergt., Henry McCowen
Second Sergt., H. C. Hirsch
Third Sergt., Jos. Parks
Fourth Sergt., Cal. Freeman
Corporal, E. L. Fullerton
Corporal, Jesse Atkinson
Corporal, Gordon Goebel
Corporal, Jno. K. Haggart

COMPANY B

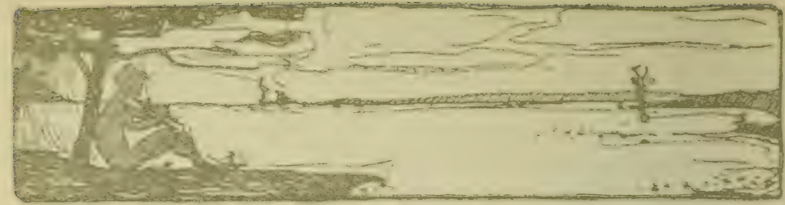
Captain, Richard Elliott
First Lieut., Robt. Roberts
Second Lieut., W. H. Beckwith
First Sergt., O. J. Gardiner
Second Sergt., Grant McGregor
Third Sergt., R. L. Stewart
Fourth Sergt., Paul Mayer
Corporal, O. K. Windsor
Corporal, Oscar Wilson
Corporal, Harry Jacobs
Corporal, R. L. Turner

COMPANY C

Captain, Roland Harwell
First Lieut., G. W. Edwards
Second Lieut., E. Lyon
First Sergt., Archie Poe
Second Sergt., R. Quesenberry
Third Sergt., Oliver Keese
Fourth Sergt., J. M. Buvens
Corporal, Morris Turner
Corporal, P. C. Fitzgerald
Corporal, Henry Crist
Corporal, Paul Given

COMPANY D

Captain, D. C. McWilliams
First Lieut., W. E. Campbell
Second Lieut., W. C. Howard
First Sergt., Wm. Hall
Second Sergt., Emmett Isaacs
Third Sergt., Elmer King
Fourth Sergt., C. J. Sampson
Corporal, Ignacio Enriquez
Corporal, Arner Eede
Corporal, Verner Clayton
Corporal, Frank Berkey



Department of Music

Mr Watkins, Director

THIS institution offers excellent facilities for the study of music. Pianos are provided free of charge to those who study Piano or to those who require the use of a piano in their musical work.

Music

An orchestra meets twice a week and gives opportunity to students who are interested in orchestral instruments, while a band in connection with the work of the Military Department will offer equal chances to players of instruments not used in the orchestra. Some of the instruments for this work are furnished by the institution free of charge.

Music reading is taught in the Preparatory Department which leads up to the college course in the Theory and Practice of Music.

Lessons in Voice, Piano, or other instruments will be given in private or in classes of two or three.

Piano. Matthews Standard Graded Course up to and including the Sixth Grade will be used for the course in Piano, supplemented by such additional studies as may be necessary for the musical and technical development of the student.

No definite time can be fixed upon for the completion of this course, it depending largely on the ability of the student and the amount of work done before entering. In addition to the above, one year of work in the course in Theory and Practice of Music will be required of each candidate for the Certificate of Proficiency.

Third and Fourth Year courses will be offered to such students as may desire to pursue more advanced work.

Voice Culture and the Art of Singing. A course in Voice and Singing is offered leading to a Certificate of Proficiency. The time necessary to complete this course will depend on the ability of the student; two years or more will be spent in the course.

Agricultur-
al College

The work will include the study of breathing, voice placing, study of vowels, vocalization, solfegio, pronunciation, and the study of songs and arias from various sources.

One year of work in the course in Theory and Practice of Music will also be required of each candidate for a Certificate of Proficiency in this course.

Theory and Practice of Music. A two years' course is offered in the Theory and Practice of Music which will be of the utmost value to anyone who is fond of music, the aim in view being to acquire a practical knowledge of how to read music at sight, how to teach it to others, to learn to appreciate and distinguish good music, to get some knowledge of musical history and literature, to study the elements of harmony and musical form, to the end that students may be of value musically as public school teachers, choir singers, choir leaders, etc. This class will recite daily and the work will be as follows:

FIRST YEAR.

First Semester.	*Second Semester.*
Study of Major Diatonic Scale.	Study of Intervals.
Practice of Intervals.	The Minor Scale.
Exercises in Ear Training (Audation).	Transition and Modulation.
	Advanced work in Audition.
Study of Rhythm.	More difficult Rhythms.
Elementary Voice Culture.	First Steps in Harmony.

SECOND YEAR.

First Semester.	*Second Semester.*
Studies in Sight Singing.	Musical History.
Conducting, Beating Time, etc.	Musical and Verbal Expression.
Harmony.	Musical Composition.
Elements of Musical Form.	Study of Oratorio, Opera, etc.

"Alas for those who never sing but die with all their music in them."—O. W. Holmes.

Band and Orchestra. Students who can play band instruments and others who may desire to enter the Band will make request to the proper authority, and if approved, will be detailed for Band duty. Band practice will be held on the same days and at the same hours as Military Drill. The college will provide instruments and music.

The Orchestra will meet twice a week for practice, and in order to encourage students to pursue this branch of the musical art credit will be given those students whose course of study permits electives.

* * *

Choral Society

A SOCIETY will be formed which will meet once a week to study such works as may be found suitable to its requirements. All students in music are expected to co-operate in this work, and an invitation will be extended to students, residents of the vicinity, faculty, instructors, and all who are musically inclined to join the society, and lend their efforts to the spread and development of musical taste and knowledge.

Credit for Musical Work

In order to produce the best class of effort in the work of this department the college authorities have decided to give credit towards college entrance and collegiate degrees to students who satisfactorily perform the work of the music courses.

Piano and Voice. Students taking one lesson per week and practicing for five hours per week will be credited for an equivalent amount of laboratory practice. *Orchestra* students will receive credit at the same rate.

Band Practice. Students will be detailed for this work from the military department and will receive the same credit for the work as others of this department receive for drill.

Theory and Practice. This will be a regular collegiate elective and will receive credit as all college subjects do.

Piano. Private lessons, one lesson per week, each semester . . . $18.00
Class lessons. To be arranged with instructor.

Voice. Private lessons, one lesson per week, each semester . . . 18.00
Class lessons. As per arrangement with instructor.

Enrollment

STUDENTS must enroll as for other studies, so that a record will be kept of the work they have entered. No lessons will be given until a student presents a receipt for the term from Registrar. No allowance will be made for omitted lessons, except in the case of protracted illness, and in such case due notice must be given as early as the day before lessons are resumed. No reduction will be made for pupils entering late in the term, except where pupils enter after six or more weeks of the term have passed. Music students withdrawing before the end of the term will be charged at the rate of $1.25 per lesson for all lessons taken or lessons that could have been taken up to the time of withdrawal.

> *"If I had my life to live over again, I would make it a rule to read some poetry and listen to some music at least once every week, for perhaps the part of my brain now atrophied would then have been kept active through use. The loss of those tastes is a loss of happiness and may possibly be injurious to the intellect, and more probably to the moral character by enfeebling the emotional part of our nature."*
>
> —*Charles Darwin.*

Department of Stenography and Typewriting

Mr. Lain, Principal Mr. Anderson Mr. Miller

Requirements for Admission

TO MEET the demand for instruction in stenography and typewriting, the above department is maintained in the college. To avoid interference with the regular college work, the work of this department is kept distinct, with certain requirements, and a definite course of study. For entrance to the course in English Stenography, students must be at least sixteen years of age. The average age of the students enrolled in this department, however, is usually much higher than this. In recent years the average has been 22½ years. Graduates of any commissioned high school in the Territory will be admitted without examination. All other applicants must show that they possess the required ability in English to enter the Freshman English class of the regular college course. See page 74.

No guarantee is given to any student pursuing these courses that he will secure a position upon completion thereof. There is, however, little doubt but that any student satisfactorily completing a required course will be able to take a position, and no competent graduate of the department has failed to do so.

Equipment

This department is supplied with sixteen typewriters of the latest model Remington, Smith Premier, Underwood, and Oliver machines. The machines necessary for the work in office practice, consisting of adding, addressing, copying machines, presses, cabinets, and the like, are a part of the equipment used by the students. A departmental library containing the latest and best publications relating to the work of this course and the best modern business periodicals is at the command of the students.

Agricultural College

It is important that the students enter this department promptly at the beginning of the course. Under no circumstances will a pupil be admitted after the second week. It is seldom that one who enters late is able to complete the required work satisfactorily. No provision can be made for commencing the work of a course at any other time than as provided. The courses of study in English and Spanish Stenography will be found on page 26.

Stenography. In the first semester, the work is elementary in character, being a thorough study of the principles of shorthand; in the
1. second semester, it covers word-signs and outline drill, as well as
2. advanced grade work, introducing a good deal of business and
other dictation. Textbooks: Day's Complete Graham Shorthand Manual, revised edition; Graham's Dictation Series; Graham's Business Letters, Series 1 and 2, and Amanuensis Practice.

Spelling. Not only are regular lessons given in spelling, but the large amount of correspondence and other writing done by the student and examined by the instructors furnishes the best possible means of fixing the habit of correct spelling. This class meets three times per week during the entire year and students are required to make an average of 90% for the above time.

Typewriting. The outline of this course corresponds to the outline of the stenography course; the first semester being elementary, covering
1. correct fingering, touch mechanism, and care of machine. The
2. second semester covers speed exercises, copying, making of legal
and commercial forms, typewriting from dictation, and transcription from shorthand notes. The four finger touch method is used, with blank key-board. Work absolutely free from errors is required. Opportunity is afforded students for work on both single and double keyboard machines. No one except those enrollêd in either the regular Shorthand or course in Commerce will be allowed to take typewriting.

English-Spanish Stenography

THE experience of past years has shown conclusively that a strong and growing demand exists for competent English-Spanish stenographers. The conditions existing in this locality and institution are so favorable for work in English-Spanish stenography that they may be

"I know no better starting equipment than a knowledge of stenography and typewriting." — *William Allan Dyer.*

Agricultural College

said to be almost unique. The calls upon this college for such stenographers during the past few years have far exceeded the supply. Although these calls come principally from Mexico, there is an increasing demand in the United States and the newly acquired Spanish speaking possessions; and it is believed that the business opportunities open to competent English-Spanish stenographers are most desirable. For admission to this course students must show that they are prepared to complete the course within one year. To do this some previous knowledge of both English shorthand and the Spanish language is desirable and usually necessary.

Stenography. This course is work in English Stenography, and con-
3. sists of rapid dictation and business forms. Stenography 6 is work
4. in Spanish Stenography, during which the principles of the text-
book used are first gone over, followed by work in Spanish dictation.

Text-book: Lester and Barker's English-Spanish Phonography.

Special Work. Under this head provision is made for special work in English, to thoroughly train Spanish-speaking students; or for those whose knowledge of that language is not sufficient.

Typewriting. This work is principally English and Spanish tran-
3, 4. scription work, with such advanced work as the time allotted
will permit.

* * *

Course in Commerce

THE aim of the course is to meet the wants of those who are seeking a high grade business education, and for the training of young men who desire to enter business careers, especially in such fields as domestic and foreign commerce and banking, or branches of the public service. It trains the student to meet the exacting demands of modern commercial life. The commercial department is not intended to qualify students for a business life in the shortest possible time, but rather to train them in such manner that they may not only secure positions of the highest trust, but be able to fill them. Individuals of limited and imperfect training are filling the ranks of the lowest class of workers, but those who are well trained and educated are sought and liberally paid for their services. Commercial conditions are changing steadily. What was good enough for the business man ten years ago, will not meet the requirements of the business man today. In no other line of the world's activity, have there been more radical changes within the past few years than in the conduct of business. The most remarkable achievements of the day are not those of science nor of art, but of commerce; and it is fair to presume that succeeding years will see a continuation of this astonishing development of our business interests, therefore, let the young people have the best preparation and training possible, in order that they may succeed in the sharp competition that they are sure to meet.

Agricultural College

For entrance to the course in Commerce, students must be graduates of a commissioned high school in the Territory, or some other high school of equal rank, to be admitted without examination. All other applicants must show that they possess the required ability to enter the Fourth Year Preparatory class.

Requirements for Admission

Commercial Geography. The student devotes three hours per week during the first semester, to a study of "the natural resources and productions of the earth; of the distribution of products; of routes of commerce and lines of transportation in general and to some extent in detail; and the subjects of domestic, colonial, and foreign markets and manufactures." Besides the regular text-book used in class work they have access to the general library, which is supplied with a large number of reference books.

Spelling. The students of the Commercial course take the subject of spelling, three times per week with the class in Stenography, during the entire first year, and are required to make an average of 90 per cent. for the year.

Commercial Law. During the second semester of the first year, the class takes up the subject of Commercial Law. It takes up the law of contracts, commercial paper, agency, partnership, corporations, sales, public service companies, and insurance. A study of the business laws and customs of foreign countries with which we have interests in common is included in this course.

Commercial Arithmetic. Mathematical accuracy and rapidity are necessary in business life. Special emphasis is laid upon practical measurements and upon interest, discount, and settlement of accounts.

"Gain all you can by honest industry. Use all possible diligence in your calling. Lose no time. Gain all you can by common sense, by using in your business all the understanding which God has given you." *—Carnegie.*

Classes are conducted in this work three days per week during the first semester of the second years.

Civics. This study is intended to give the pupil an elementary knowledge of those facts that are necessary to the right discharge of the duties of citizenship.

Commercial Letter Writing. During the first semester of the second year, a class is conducted by the department, in which special attention is given to the writing of all kinds of business letters, letters soliciting business, letters containing statements of accounts, letters of recommendation, etc., all of which are individually inspected by the instructor, who gives suggestions in wording and style. Too much stress cannot be laid upon the value of being able to compose an intelligent business letter.

History of Finance. The object of this subject is to inform the student of the general principles of public revenue and the origin of wealth, and to acquaint him with the methods employed in the business world.

Bookkeeping. During the first year the student is instructed in the elements of theoretical bookkeeping, both double and single entry. This class meets twice each week for the entire year. During the second year they take up the advanced work in various lines of business, including mercantile, both wholesale and retail, and manufacturing and banking. In the first year the student is made familiar with the first principles of the science of bookkeeping. He is guided carefully until he can master the simpler forms of the daybook, cash-book, and ledger. Frequent drills in journalizing and closing ledgers are given for class drill. The student, in the advanced work, will be required to master all forms and sets of books in the various lines of business; such as partnership, stock companies, corporations, etc.

"For ambitious young men or women determined to strive mightily, seeking a field for their abilities and a profitable return for their willingness to work, the demands and opportunities for a business career are attractive enough and sufficient."
—William Allen Dyer.

The Preparatory Department

Mr. McClenahan, Principal

THIS department has been planned primarily for young men and women who desire to prepare themselves for some of the regular courses of the college proper. Owing to the extent of the territory and its scattered population, it has been almost impossible to secure good school privileges for every settlement, or even for some of the larger towns. This department, through its special and regular classes, enables pupils to supplement these deficiencies. It secures complete and thorough instruction in the branches commonly taught in grammar and high schools.

The course of study has been revised recently and made to conform to the most modern ideas. Full college periods are required for recitations and pupils are limited in the numbers of branches they may pursue at one time. The entrance requirements have been raised one year by dropping the B class. In order to enter, pupils must have completed the work of the seventh grade as outlined in the course of study for the public schools of New Mexico and authorized by the Territorial Board of Education.

History. Pupils should have had at least one year of United States history before entering this class.

Geography. This is only intended to be a review, and in order to enter this class students must have finished some complete text.

Special Classes. For pupils who are at least sixteen years of age and who are sufficiently prepared to recite in some studies with a regular class, but are deficient in other studies, special classes will be formed, suited to their needs. These are designed for those whose school privileges have been especially deficient and for those Spanish-speaking students who would be admitted to a regular class if their knowledge of English were greater.

* * *

Teachers' Courses

IN ADDITION to the regular academic work of the preparatory department, studies have been planned for those who wish to teach either before or after they have completed their college work. The following special subjects have been added to the work so as to conform to the requirements and recommendations of the Territorial Board of Education, and also to prepare teachers to properly present the subjects of agriculture and domestic science in the schools where they may teach—Theory and Practice, Special Methods, School Management, Elementary Applied Psychology, Domestic Science and Elementary Agriculture.

This work is elective and need be taken only by those who wish to teach; however the work will be of such a nature that preparatory credit will be given for it.

Students who complete the first year of the preparatory department and the required amount of pedagogy will be granted a two year certificate. Those who complete the second year of the preparatory with the required amount of pedagogy will be granted a three year certificate. These certificates will be presented at the completion of the work and will entitle the bearer to teach any place in the Territory.

Theory and Practice. In this work the pupils will receive both principles and practice. The laboratory method will be used and D. pupils will be required to do the actual work. Among the subjects presented the following may be mentioned:—Preliminary preparation of the teacher, Making a program, Care of the schoolroom, Assigning lessons, Moving classes, Illustration and Discipline. All work will be made as practical as possible.

Special Methods. In this subject attention will be given to the proper
way to present the common branches so as to make them inspirational
C. and helpful to the student. The various steps that are necessary
to use will be given. The subject will be developed and the pupil's
knowledge tested. The following branches will receive special atten-
tion:—Arithmetic, Grammar, Geography, History, Orthography, and
Penmanship.

Agricultur-
al College

School Management. In this class instruction will be given in the
practical problems of school supervision. How to organize and dis-
B. cipline a school. How to grade a country school. Lighting, Heat-
ing, Ventilation, Prevention of Disease, Keeping the records, and Mak-
ing reports: are some of the subjects that will be considered. In this
class pupils will be encouraged to visit model classes and observe
the work.

Elementary Psychology. Instruction will be given in the principles of
psychology and their application made to the practical problems of
A. education. The relation of the mind to the body will receive
much attention. The students will be introduced to the philosophy of
education and to the social phases as based upon psychological
principles.

* * *

FURTHER information regarding requirements for admission may be obtained by addressing the principal.

For entrance to the higher classes candidates must give satisfactory evidence of having completed the work of grades below the class they seek to enter.

Strict adherence to these requirements will be enforced.

Instruction in free-hand drawing is provided for all pupils.

Daily instruction is given in vocal music by a special teacher. All pupils are required to attend these classes.

The aim of the department is to develop courteous manners and studious habits in the pupils. While strict discipline is maintained, the students, as far as possible, are placed on their honor and self-government is encouraged. This, we believe, will tend to develop those qualities necessary to good citizenship.

Literary Society. Pupils who desire may join a literary society and do regular work during the year.

Library. Besides the special preparatory library, students have access to the general library for reference works.

STUDENT ORGANIZATIONS

The Student Congress

THIS organization has been an active force in student affairs for several years. Its special purpose is to bring the student body together as a whole and develope ways and means for the promotion of college spirit and fostering student activities. Through the student conference committee the faculty receives, for consideration, recommendations from the Student Congress executive committee. The work of the Student Congress in the past has been very satisfactory. All students of the institution are members of the Congress and the officers which form the executive committee are elected once a year. It has control of the election of the management of the College paper and directs its policy.

* * *

The Columbian Literary Society

Alphi Chi was the name taken first by this society on October 25, 1891. The next year it was changed to Columbian and grew steadily and in 1894-5 women were admitted with equal privileges. The work of the society is along literary and musical lines under the direction of of a program committee. For over ten years this society published the only paper devoted to student life in the institution—"The Columbian"—which was printed monthly. Membership in this society is limited to students taking work under College professors—that is, in any of the four year courses, two year courses, stenography course and Fourth Year Preparatory class. Regular meetings are held twice a month. Visitors are allowed during the literary part of meetings and a special prepared program, to which more than usual care is given, is rendered once a term.

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The Minerva Literary Society

This society was organized in November, 1904, and in membership is the largest in the college. Meetings are held twice a month and the preparation of programs of debates, readings, musical selections, and recitations is of great assistance to the members. Still more is the student broadened by participating in the social life of the society which is one of its strong features. Qualifications for membership are the same as for the Columbian Literary Society.

The Stenographer's Association of New Mexico

Membership in this association is confined to members and graduates of the Stenography Department. The association was formed four years ago and has had a vigorous existence. Programs for meetings are designed to cover all fields of interest to stenographers and to show possibilities in store for those doing phonographic work. The colors of the association are crimson and white and the neat pin worn by its members is circular in form and has a large crimson letter "S" on a white background. In December of last year the association conceived the idea that a college weekly paper would be an attractive and successful issue. The "College Weekly" began, and in winning the support of all the students in college brought about the consolidation of all student publications into the enlarged weekly issue of "The Round-Up"

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Lincoln Literary Society

In the fall of 1902, the students of the Preparatory Department organized a literary society, which has been continued with much enthusiasm and success. The society is composed of the most enterprising students. They elect their own officers, make their programs, and have charge of their meetings, the principal and teachers simply acting as advisory members. Every Thursday afternoon the last hour is given to the discussion of some stated question, each member being allowed an opportunity to take part in the debate. The larger part of every Friday afternoon is devoted to a regularly prepared program, consisting of recitations, compositions, debates, and music.

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The Round-Up

The "New Mexico Collegian", founded in 1893 by the Columbian Literary Society and the "College Weekly," founded in 1906 by the Stenography Association, combined forming "The Round-Up", a weekly published under the control of the Student Congress. The paper is in newspaper form. One issue each month is of double size, the addition being devoted to matter of more literary nature than the news portion.

The paper is very successful, due largely to the editorial work and the strictly business basis upon which it is conducted.

The Athletic Association

Sixteen years ago (1893) the students organized an Athletic Association for the development of athletics and such sports as would tend to keep the student physically sound and in good health while pursuing his college work. The association has grown steadily and has expanded until it is the best organized and equipped, both with athletic goods and grounds, and with funds to carry on its work, of any like organization in the Territory.

The spirit with which the students carry on this work is most commendable and is one of the greatest factors in the student life in bringing them and the members of the faculty more in touch with each other. The efficiency of the association is shown by its work. It has taken the lead in all matters pertaining to athletics in the Territory. Besides engaging successfully with outside teams in football in the fall, basketball in the winter, and baseball in the spring, it has taken the lead in track and field work. All but two of the Territorial records are held by the college. Four intercollegiate track meets have been held and in all of these meets the college has carried off the honors easily. The college track team now permanently holds the three silver loving cups presented to the Intercollegiate Association by Hall and Learnard, of Albuquerque, Manasse Bros., of Las Cruces, and H. D. Bowman, of Las Cruces. The policy of the faculty of the institution is to allow the students to do as much of the work as possible, thus fostering physical development and encouraging the cultivation of that sense of responsibility, resourcefulness, and assurance so much needed in the rounding out of a student.

The college athletic field is the best in the Territory. It is excellently situated and equipped with good fields for football and baseball, with tennis courts, a quarter mile running track, and a straightaway course for 100-yard and 220-yard dashes.

The football team won an unquestioned title to the Territorial championship by winning from the Roswell Military Institute. The second team lost both games this year with the El Paso High School. Baseball was more strongly organized than for some years, but lost the final series with Roswell Military Institute in May.

The girls' basketball team holds the Territorial championship. The boys' basketball team lost a hotly contested game with the University team. The cost of membership in the association is an admission fee

Agricultural College

of one dollar ($1.00), paid but once, and a monthly assessment of 25 cents. A member of the association has access to the football and basketball suits, tennis courts and balls, the usual outfit for field sports, and the facilities of the grandstand.

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Young Men's Christian Association

This association was formed on September 23, 1905, by Mr. Titus, the District Secretary stationed at El Paso, Texas. A great deal of interest is taken in the work. The membership is made up of Faculty and Students. The influence on the life of the student body is gratifying to the college authorities. A handsome two-story building with large basement is being erected by popular subscription. Mr. Pollard, industrial Secretary of the territories, spent two weeks with the association in May, aiding in the financial work of the association.

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Young Women's Christian Association

During the last term of this year a local division of the Y. W. C. A. was formed, with twenty-seven charter members. The prospect for the work is very encouraging.

* * *

Other Organizations

Several other organizations exist among the students, social, scientific, and otherwise. Among the more important are the Colonia Latina, a group of Spanish-speaking young men who meet socially, the Dramatic Club, the Engineering Association, and the Agricultural Club; their names tell their aims. The doings and membership of these and other organizations are duly chronicled in the Swastika.

MATERIAL EQUIPMENT

The Main Building

THE main building is a brick structure of two stories with stone basement surrounded by a cement area. It is trimmed with a gray stone and has a heavy rough stone foundation. It contains thirteen rooms, all of which are furnished and in constant use. The building is supplied with water and is lighted by electricity. On the first floor are the library and the president's and the registrar's offices, as well as a number of recitation rooms. On the second floor, besides several class rooms, is McFie hall, which is used for class exercises, lectures, and similar purposes, and will seat a large audience.

* * *

Science Hall

This is a large two story brick building, situated north of the main building. It contains eleven large rooms, and five smaller ones, besides hallways. The lower floor is occupied by the departments of Chemistry and Domestic Science, while the upper floor furnishes quarters for the departments of Physics, and Biology. All the class work of these departments is done in this building, and the Experiment Station work in chemistry, botany, and soil physics is carried on here.

* * *

Engineering Buildings

These buildings, two in number, are located south of the Main building. They comprise, besides two large recitation rooms and hall, commodious rooms for wood work, machine work, foundry, and blacksmithing; an electric light plant; and a 40 horse-power steam plant. These buildings are well equipped for engineering work.

* * *

Women's Hall

This is a brick building, situated on the College Farm. It contains a large dining hall, a large parlor, a smaller reception room, a music room, the matron's room, a kitchen, etc., besides bath-rooms and twenty-five well lighted and ventilated sleeping rooms, all nicely furnished. About fifty people can be accommodated in the building.

Other Buildings

BACK of the main buildings are the feed rooms and horse sheds. These are for the horses of the students and professors. An adobe farm building erected at a cost of about $2,000 is located near the center of the farm. The greenhouse and the sheds for the storing of farm implements and machinery are located near the farm building. An adobe corral has recently been added to the equipment.

* * *

New Buildings

With funds which are at last, after many vicissitudes, in the hands of the Board of Regents, the following new buildings are about to be constructed. These buildings have been sorely needed for a number of years and it is expected that the college will be no longer hindered in its legitimate growth for lack of room. Plans and specifications for the construction of the following buildings are now in the hands of the contractors and it is expected that operations on three new structures will soon begin. They will probably be ready for occupancy by the beginning of the second semester of next year.

Administration Building and Library. This building will be the central building of the newly planned quadrangle and will be architecturally more elaborate than some of the rest. Its first floor will contain six administration offices and a large general assembly room. The second floor will be given up to the library and will furnish excellent and much needed quarters for this department. There are to be six rooms in the semibasement story which are for the department of Household Economics.

Agricultural Building. The second building is for the departments of Agriculture, Horticulture, and Irrigation Engineering, and will contain offices, class rooms, museums, and laboratories for the work of these allied subjects. It follows the common plan adopted for all buildings and will have two stories and a semibasement.

A Dormitory which will accommodate sixty young men is a third building which will make a much needed addition. Besides this a temporary mess hall for the young men is to be built to supply boarding accommodations for them.

The Y. M. C. A. Building is nearing completion and will no doubt be ready for occupancy by the beginning of next school year. This building is an excellent addition to the institution and will offer attractions to the young men such as the college has long needed.

The Library

The libraries of the college consist of the general, departmental, and text-book libraries.

The General Library is located in the Main Building. It is especially well equipped in reference books, and contains a good collection of general literature, with the standard works in the various other classes. The collection is increased with reference to the needs of the various departments, keeping in view the development of a strong reference collection. The library subscribes to the leading periodicals, and many magazines and papers are received as gifts. Personal assistance in all lines of reference work is given by the librarian and assistants.

The Departmental Libraries are located in the offices of the several departments. They are open during the working hours of the department, and books may be drawn by consulting the professor in charge. Each department has an author catalog to its own books, and each of its volumes is regularly entered in the dictionary catalog of the general library. The departments subscribe to 88 magazines, and receive many others as gifts.

Statistics for 1906-1907, and 1907-1908.

	1907.	1908.	Gain.
General library	4878	5357	479
Agriculture	215	250	35
Biology	654	855	201
Chemistry	433	437	4
Commercial	...	111	111
Economics	—	2	2
Engineering	493	541	48
English	71	81	10
Horticulture	103	122	19
Household Economics	49	97	48
Irrigation	...	11	11
Mathematics	105	126	21
Military	109	109	..
Preparatory	196	205	9
Soils	91	106	15
Spanish	218	232	14
Text-books	5651	5651	...
Totals of bound volumes	13356	14383	1027
Station bulletins		6122	
Documents U. S. Department of Agriculture		2744	
Miscellaneous documents		2140	
Totals of books and documents		11640	

> *"There are many virtues in books, but the essential value is the adding of knowledge to our stock by the record of new facts, and, better, by the record of institutions which distribute facts and are the formulas which supersede all histories."*
>
> *Ralph Waldo Emerson,*

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One hundred and eighty-seven periodicals are received by the General and Departmental Libraries as follows:

General Library	88
Departmental Libraries—	
Agriculture	[illegible]
Biology	10
Chemistry	8
Engineering	18
Horticulture	[illegible]
Household Economics	12
Mathematics	4
Military	1
Preparatory	9
Soils	3
Spanish	2
Stenography	8
Economics	5
Irrigation	2
	187

The following newspapers are received and placed on file in the Library:

Albuquerque Evening Citizen.
Albuquerque Morning Journal.
Carlsbad Argus.
Carrizozo Outlook.
Chicago Drover's Journal.
Chicago Tribune.
Cloudcroft Silver Lining.
Colfax County Stockman.
Deming Graphic.
El Laborador.
El Nuevo Mexicano
El Tiempo.
La Voz Publica.
Las Cruces Citizen.
Las Vegas Optic.
New Mexican Review.
New York Times.
New York Tribune Farmer.
Otero County Advertiser.
Rio Grande Republican.
Roswell Register Tribune.
San Juan County Index.
Santa Fe New Mexican.
Tucumcari News.
Farmington Times Hustler.

"The true University of these days is a collection of Books."
—Thomas Carlyle.

Agricultural College

THE College of Agriculture and Mechanic Arts offers a great deal to the young people of New Mexico. Its courses of study and equipment are now equal to those of similar colleges in most of the older states and students can get a very thorough training here in any of the leading lines of practical education. New schools generally make greater efforts than the older ones and the energy put forth and the instruction given are often superior.

General Information

In the smaller colleges like this, the student comes into closer personal contact with the professor and receives more personal attention and direction in his work than is possible in larger institutions. Parents are requested to make a careful investigation of this college and learn fully of the excellent opportunities it offers before deciding to send their children elsewhere.

Agricultural College, N. M., is the postoffice and Mesilla Park the general telegraph, freight and express office of the college.

There is now a good elementary public school at Las Cruces, the course of study of which connects with that of the preparatory department of the college; so that parents who desire to live in the neighborhood of the college for the sake of giving their older children its educational advantages will also have at hand a good school for their younger children.

Strangers will now find satisfactory temporary accommodations at Mesilla Park near the depot. They should then report to the President who will assist them in finding boarding accommodations.

Students should be present the first day of the term. The necessity of this is too seldom realized. New students and those desiring re-examination should report on the day named for this work.

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The board of regents determined in 1900 to establish one or more fellowships, of the annual value of $300, open to graduates of

"The entire object of true education is to make people not merely do the right things, but enjoy them—not merely industrious, but to love industry" —Ruskin.

Fellowships

the college, and in default of competent graduates who have specialized in the particular line of work required of the fellow, to graduates of other colleges. These fellowships will be tenable for one or two years, but not for a longer period, and will be awarded to promising graduates who desire to pursue their studies in one or more lines beyond the undergraduate curriculum, and who are willing and able to devote half of their time to assisting in the work of one of the departments of the college. The appointment will be made upon the joint recommendation of the head of the department in which the fellow is to serve and of the president of the college. A fellow will not be permitted to carry more than two full courses of study, without the express permission of the head of his department and the president of the college.

Fees and Deposits

Entrance Fee. Each year all students who are citizens of New Mexico are charged a fee of five dollars ($5.00); students from other states or territories in the United States are charged a fee of seven and one-half dollars ($7.50) per semester. Students who are not citizens of the United States are charged a tuition fee of twenty-five dollars ($25.00) per semester or fifty dollars ($50.00) per year.

* * *

Library Deposit. All students are required, each year, to deposit two and one-half dollars ($2.50) with the registrar as a guarantee that the proper treatment will be given to college books and other property lent to them. At the close of the year or whenever the student withdraws from the college, his deposit, less charges for damages to or loss of college property, is returned to him. Students who are notoriously careless with college property may be required to increase their deposits.

Chemistry Deposits. Students in all chemistry, mineralogy, and assaying courses must have on deposit with the registrar at the beginning of each term, the sum of five dollars ($5.00) to cover breakage of apparatus used in this work. Students in furnace assaying must, in like manner, have on deposit ten dollars ($10.00) to cover cost of crucibles, scorifiers, and other apparatus used up or broken. At the end of the year or upon withdrawal, these deposits less breakage, etc. will be returned.

Chemistry Fee. At the beginning of each term each student taking furnace assaying will be charged a fee of five dollars ($5.00), to cover cost of gasolene and fluxes used.

Mechanical Engineering Deposits. Students taking any practice work in the Engineering Department, will be required to deposit with the Registrar, at the beginning of each year, five dollars ($5.00) to cover breakage or damage, and must make additional deposits at any time, to meet similar expenses in excess of this amount. These deposits, less charges for breakage or damage, will be returned at the end of the year or upon withdrawal.

Military Fee. Each student who is classified for the military course will be required to deposit with the Registrar the amount necessary to purchase a complete uniform, when he commences this work. The regular fatigue uniform will cost about $16.30 complete. This includes suit, cap, and gloves, as adopted for use of the cadets.

Music. Instruction in music is charged for by the lesson.

Horse-stall Rent. Twenty-five cents (25c) per term is charged each student or teacher using a horse-stall. This fee is used to keep the sheds clean.

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Stationery

As the college is nearly two miles distant from any store dealing in books and stationery, it has been found necessary, for the accommodation of students, to carry at the college a small line of articles, such as pencils, pens, etc., which are sold to students, for cash only, at a small profit.

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Boarding

The boarding accommodations for all classes of students are becoming quite varied and ample. The college has attracted to its immediate vicinity private families, many of whom accommodate some students with board. The price for board, room, light, etc., in families, varies from $18 to $23 per month. Not far from the college campus are cottages for rent. These are usually occupied by families who have moved in and taken temporary residence for the purpose of educating

"The correct perception is a preparation for correct knowing and thinking." — Froebel.

their children. This is a very satisfactory solution of the boarding problem.

A boarding club for young men has been established under the general supervision of the faculty. Table board is furnished to some who do not room in this building. Rooms are furnished with study-tables, but students are expected to furnish their own bedsteads or cots, bedding, towels, etc. Rooms, however, will be fully furnished for those desiring it. The food is abundant and healthful. The cost for board and room will not exceed $20.00 per month when students furnish their own bedsteads and bedding, and may be a little less.

* * *

The Women's Hall

The Women's Hall, situated on the college farm, will accommodate about fifty students. The price of board per calendar month, with room, light, and heat, is $20.00 when two young women occupy a room; payable in advance on the first of each month. Young women who desire to occupy a room alone will be charged $25.00 per month. The rooms are comfortably furnished, but each student must provide comforts, blankets, sheets, pillow-slips, towels, napkins, napkin-ring, and two laundry bags. The student's name must be plainly marked on all pieces. A spoon and glass should be brought for use in the room.

The students are under the general supervision of the faculty, and in charge of the Dean of Women who will supply further particulars.

Estimate of Necessary Expenses

Various college incidentals	$ 10.00		$ 10.00
Nine month's board and lodging at $18 to $25	162.00	to	225.00
Laundry, per month at $1.00	9.00		9.00
	$184.00	to	$224.00
Male students who are required to take military tactics, for uniform			$ 16.30

There is considerable labor on the farm, in the shops, and in the laboratories, that can be performed by students, and the policy is to give it to

Assistance of College

Paid Labor

students rather than to others. Some students have been able to earn enough money during the year to pay their expenses; but those doing so have had constant employment in some subordinate position. The college can not undertake to furnish work for all students who wish it, or need it, in anything like sufficient amount to pay expenses; and even if it could the student's time is needed chiefly for study, recitation, and practice. Still many worthy and industrious students pay a considerable part of their expenses by labor. Preference is given to those who are most trustworthy and meritorious, and who are regular and punctual in attendance, and correct in deportment. This labor is paid for at the rate of from 7½ to 20 cents per hour; but the faculty reserves the right to limit the amount of work any student may do.

* * *

Religion

All students will be trained in the principles of morality, but no sectarian teaching will be tolerated in the college. Entire freedom of choice is given the student in selecting the church he will attend. Services are held at the following churches every Sunday: Roman Catholic, Presbyterian, Methodist, Baptist, and Episcopalian. At the Presbyterian church are held meetings of the Young People's Society of Christian Endeavor. With the Methodist church is connected the Epworth League. Recently a branch of the International College Y. M. C. A. has been established at the college and regular meetings are held on Sunday.

* * *

Discipline and Government

It should be impressed upon the youth of New Mexico that by the creation of the College of Agriculture and Mechanic Arts there has been provided for them the fullest and best opportunities to secure a practical education. Students who enjoy the advantages here offered should realize that to forfeit these privileges on account of their misuse or abuse is a matter of the most serious concern to them. No elaborate code for the conduct of students is prescribed. The college rules are mainly for the purpose of facilitating the college business. As regards behavior, students are expected to conduct themselves as ladies and gentlemen. If, after a fair trial, the influence of any student is found to be detrimental to scholarship, morals, or good order, dismissal will follow.

"'Tis education forms the common mind:
Just as the twig is bent the tree's inclined."—Pope.

Agricultural College

For some time past the students have been encouraged to take an active part in the administration of the college. The student body is organized, and there is a Student Conference Committee consisting of representatives from the student congress and from the faculty. This committee discusses informally all matters of student concern, whether proposed for discussion by the faculty or by the students, and recommends to the faculty and to the student congress such lines of action as seem to it to be wise.

College Rules

As already stated, it is the policy of the faculty of this institution to deal with students in the most liberal manner possible. It is assumed that the college students in an institution of this character are of sufficient age and advancement to know how to conduct themselves properly as ladies and gentlemen. In view of this policy this institution has no written rules relating to the conduct of students. Any violation of the usually accepted code of proper conduct is dealt with as the particular case may demand.

In order that students may know how to attend to the business requirements of the institution in regard to their studies, the library, college organizations, etc., quite a full list of rules of procedure is given below. These rules, while designed primarily for college students, apply, in many instances, to students of the preparatory department as well. In all special cases the preparatory department has its own rules.

1. A student when first entering college, or at the beginning of the first term of any subsequent year, must present himself:

* * *

Matriculation, Etc.

To the President

who fills out the student's "admission card", and sends student with a "term assignment card"

To the Course of Study Committee

which assigns studies, completes the "term card", and issues class cards to the student, who goes

To the Registrar,

gives him the class cards, pays fees called for by his courses, takes receipt, and then reports

To the Classes, and shows each Instructor his receipt. If the receipt is satisfactory, the instructor admits him to the class and assigns the lesson.

Registration at College

2. At the beginning of the second semester, a college student who has previously entered will procure a term assignment card from the Registrar, who will fill out the personal part of the card before giving it to the student, and the student will then go to the *Course of Study Committee* and the procedure from this point will be the same as at the beginning of the year, except that the student need not go to the Registrar again unless he is assigned to a course which requires the payment of a special fee or deposit.

3. *Students* must preserve the receipts they receive at the beginning of the year, and show them to their instructors at the beginning of each semester as a condition of admission to class. If the receipt is lost, a duplicate may be obtained from the Registrar upon payment of a fee of 10 cents.

4. *An Instructor* must not admit a student to his class, even though he have a class card, unless he shows the Registrar's receipts for all fees and deposits required of members of the college taking the course in question.

* * *

Grading, Examination and Classification of Students

1. The system of grading is on a scale of 100.

2. At the end of each term, unless special action be taken by the faculty to the contrary, examinations are held in all subjects, or parts of subjects, taught during that term.

3. The lowest passing grade is 70. Students making a grade of 85 in their daily class work, may, at the discretion of the instructor, be excused from examination.

4. The method of determining the average daily grade, except in the matter of absences, is left to the instructor in charge.

5. In determining the average daily grade, an amount is deducted for unexcused absences, proportional to the amount of work missed.

"What we want is not learning but knowledge; that is the power to make a learning answer its true end as a quickener of intelligence and a widener of our intellectual sympathies."—Lowell.

Excused absences count the same as those unexcused, unless the work missed is made up to the satisfaction of the instructor. The adjustment of the matter of absences, is left to the instructor in charge.

6. In making up the term grade in any subject, in case an examination has been held, the average daily grade is added to the examination grade and the sum divided by two. In case no examination is held at the end of a term, the average daily grade is taken as the final mark for term.

7. Students who receive a term grade of 70 or more in any subject, shall be passed; those below 55 shall be dropped from the class.

8. A student conditioned in any subject has a chance to remove his condition by taking a re-examination in the subject. If he fail in the re-examination, or fail to take the same at the specified time, credit for the work will be given only after he has repeated the subject in class and made a passing grade on the same.

9. All re-examinations for failures in entrance examinations shall take place at or near the close of the first term. Re-examinations for failures in studies shall take place at or near the close of the next term, except that students failing in the last term of the year must be re-examined at the beginning of the next year.

10. All re-examinations for failures during the first two terms of the senior year must occur before the beginning of the third term of that year.

11. A student conditioned in any subject may be allowed to proceed with his class, with the chance of removing the condition at the end of the next term; but if he then fail to pass a satisfactory examination, he shall be dropped from the class.

12. If a student, at the end of any term, fail in every subject or in every subject save one, he may be at once dropped to a lower class, or from college, as the faculty may decide.

13. Whenever a student, by action of the faculty, is put into a lower class, he may be required to repeat all the studies of that class, whether he has previously passed in them or not.

14. No student taking a regular course is allowed to take up any subject in that course until he has passed in all preceding work necessary

to fit him for that subject. Neither will such a student be excused from any prescribed work in that course except by special action of the faculty.

15. No special student is allowed to enter any class unless in the opinion of the instructor in charge, he is thoroughly prepared in all necessary preecding branches.

16. In case of any conflict in the course of study, unless otherwise ordered by the faculty, the higher subject shall give way to the lower.

17. Students are classified according to the number of units they have completed. Upon completion of the work required for entrance, they are classified as Freshmen; four units of college work are required in each year of the college course in addition to the military drill or physical culture required of all students not classified as Juniors, Seniors or Graduates. In calculating credits, two hours of drawing, laboratory work, shop practice, or field work are counted as equivalent to one hour of recitation.

18. No grade from another school will be accepted for advanced standing in college courses in this institution, except by special action of the faculty. A student who desires credit for work done at schools ranking lower than this institution, must pass a satisfactory examination or present other evidence that the work has been thoroughly done.

19. A record is kept of the work of each student, and at the end of each term, reports showing grades, etc. of the different students, are sent to their parents or guardians.

20. When a student shall have been assigned to any class or branch of study and shall have entered on the same, he can withdraw honorably from such class only by presenting to the instructor the written consent of the President of the college.

* * *

Graduation

1. Seniors having conditions at the beginning of the second semester of the senior year will not be considered candidates for a degree.

2. A student, in order to graduate, must have completed the full amount of work included in one of the college courses of study, or an equivalent of the same which has been accepted by the faculty.

"The best part of our knowledge is that which teaches us where knowledge leaves off and ignorance begins."—Holmes.

Agricultural College

3. Under rules adopted by the Associated Agricultural Colleges and agreed to by the War Department, students who have been classified for the Military Department shall not be graduated unless they have pursued the Military Course satisfactorily for two years.

4. Each candidate for graduation is required to prepare a thesis, which shall be passed upon by a committee consisting of the head of the department in which the work was done, the professor of English, and the President.

5. Any graduate may be required by the faculty to give an exercise on commencement day, consisting of an oration or an extract from or an abstract of the thesis.

6. Subjects for theses must be presented to the faculty for approval not later than the end of the first semester of the senior year.

7. All theses must be handed in for inspection by the committee referred to under section 4, before the beginning of the senior vacation, and the finished thesis must be filed with the Registrar not later than the beginning of the second week of the senior vacation.

8. A thesis in order to be finally accepted, must be clearly written or type-written, on good linen paper 8x10½ inches, bound, and a copy delivered to the President for permanent preservation.

9. Seniors are given a vacation during commencement week and the week immediately preceding.

Absence and Tardiness

1. A male student who is absent or tardy must state the reason for such absence or tardiness to the different instructors concerned, the first time he meets said instructors in class thereafter. If no such statement is rendered the student will be marked zero for the work he missed.

2. A female student must, in the same manner, present to the different instructors concerned, not later than the second time she meets said instructors in class thereafter, a written statement from the Dean of Women as to whether an absence or tardiness has been satisfactorily explained.

3. Any student who is absent from a regular examination at which he or she should be present, shall be required to present to the instructor in charge a satisfactory excuse for the same, in default of which said student shall be given a grade of zero and dropped from the class.

Absences at College

* * *

The Library

1. Subject to the following rules, books and periodicals may be drawn from the library by making the necessary application to the librarian.

2. Temporary assignment of library books may be made to the different departments of the institution by the librarian, subject to the approval of the President. Books so assigned may be recalled at any time. Indefinite assignment of the library books and periodicals may be made to the different departments by the library committee, subject to the approval of the faculty. Books and periodicals so assigned can be recalled only by faculty action.

3. No library book, unless in a department library, may be kept out for more than two weeks consecutively. For each day over time a fine of three cents is imposed.

4. Encyclopedias and similar works of reference must not be taken out of the library, except by special permission of the librarian.

5. Current numbers of periodicals may not be kept out of the library longer than over night, except during the period from Friday evening to Monday morning. The last seven issues of the dailies, the last four issues of the weeklies, and the last two issues of the monthlies are considered current numbers.

6. Current number of periodicals may not be drawn sooner than one hour before the library is closed and must be returned by 9:00 a. m. of the day on which rule 5 calls for their return.

7. Periodicals other than current numbers, will be governed by the same rules as library books.

8. No book or periodical assigned to any department may be drawn without the express consent of the head of that department.

"I would rather be a poor man in a garret with plenty of good books than a king who did not love reading." —Macaulay.

9. The library is open for use between the hours of 8 a. m. and 5 p. m. five days of the week; from 8 a. m. to 12 m. on Saturdays, and from 2 to till 6 p. m. on Sundays, when an attendant is present. Admission to the library is denied at all other times.

College Organizations and Athletics

1. The public exercises of all societies, classes, athletic teams, or other organizations connected with the college, are subject in time, place, and character, to the approval of the President. All rooms assigned for the use of societies or other organizations shall be occupied subject to the faculty's control.

2. All societies, classes, athletic teams, or other organizations connected with the college are required to notify the faculty in writing of all dates desired for public exercises. When possible, such notices shall be given at least two weeks before such exercises are to be given.

3. The faculty reserves the right of passing upon the constitution and by-laws, and all subsequent amendments to the same, of all societies organized in connection with the college.

4. The first Friday in May is a holiday set apart for athletic sports, and is known as Field Day.

Miscellaneous

1. It is the duty of any professor or officer of the college to note and rebuke violations of good order.

2. Carriages must be so arranged about the horse stalls that an open passage is left between the carriages and stalls, and horses must not be tied in places where they block the passage to the stalls.

3. The faculty may, at any time, deprive a student, whose college work is unsatisfactory, of the privilege of taking part in any team or public athletic work.

4. Smoking, or the carrying of lighted pipes, cigars, or cigarettes, is not permitted in or about any of the buildings of the college and experiment station.

ALUMNI

Officers of Alumni Association

For 1908-1909

President	Fannie Ford
First Vice-President	C. P. Wilson
Second Vice-President	L. W. Case
Secretary	Lottie Sweet
Treasurer	O. C. Snow

Class of 1894

Fabian Garcia, M. S. A., Professor of Horticulture and Horticulturist to the Experiment Station, New Mexico College of Agriculture and Mechanic Arts.

Mrs. Agnes Herbert, (nee Williams), B. S., Housewife, Hondo, N. M.

E. Roy Larkin, B. S., Superintendent of City Schools, Las Vegas, N. M.

Lemuel C. McGrath, B. S., Deceased, 1907.

Oscar C. Snow, B. S., Ranchman, Mesilla Park, N. M.

Class of 1895

Mrs. Jessie C. Rhodes, (nee Casad) B. S., Housewife, El Oro, State of Mexico, Mexico.

Class of 1896

Mae Gilmore, B. S., at home, Alto, New Mexico.

Alfred M. Holt, M. S., Deceased, 1901.

Albert H. Peterson, B. S., Mechanic, Chicago, Ill.

Clarence E. Rhodes, B. S., Superintendent Cyanide, Dos Estrellas Mining Co., El Oro, Mexico.

Class of 1897

Joseph F. Bennett, M. S., with the Sullivan Machinery Co., El Paso, Texas.

Elgin B. Holt, B. S.

Arthur E. Williams, B. S., Deceased, 1905.

Class of 1898

Edwin E. Casey, B. S., U. S. V., Deceased, 1898.

Duval G. Cravens, B. S., Head of Department of Mathematics and First Assistant Head Master, The Mooney School, Murfreesboro, Tenn.

Charles E. Mead, B. S., Druggist, San Marcial, N. M.

Agricultural College

Ivah R. Shallenberger (nee Mead), B. S., Housewife, San Marcial, N. M.

Isaac H. Stanley, B. S., Silver City, N. M.

William A. Sutherland, B. S., Member of the law firm of Holt and Sutherland, Las Cruces, N. M.

Lottie Sweet, B. S., Teacher, Las Cruces, N. M.

George M. Williams, B. S., Student and Social Worker, Antioch, Calif.

Class of 1899

Edward J. Coe, B. S., Fruit Grower, Glencoe, N. M.

Walter C. Holt, B. S., Mining, Mexico.

John D. Tinsley, B. S., Professor of Physics and Soil Physicist, Vice-Director of the Experiment Station, New Mexico College of Agriculture and Mechanic Arts.

Class of 1900

William Cory Meeker, B. S., A. B., Presbyterian Minister in Kansas.

Charles Lewis Post, M. S., U. S. Deputy Mineral Surveyor and County Surveyor Doña Ana County, Las Cruces, N. M.

Archie Bruce Sage, B. S., Professor of Mechanical and Electrical Engineering, New Mexico College of Agriculture and Mechanic Arts.

Halbert E. P. Thomas, B. S., Deceased.

Class of 1901

Leah Nora Case (nee Newberry), B. S., Housewife, Las Cruces, N. M.

Minnie Wilson Sutherland (nee Newberry), B. S., Housewife, Las Cruces, N. M.

Alfredo Marcos Sanchez, M. S., Assistant Territorial Superintendent of Public Instruction, Santa Fe, N. M.

Matthew Steel, M. S., Assistant in Chemistry, Columbia University, New York City.

Class of 1902

Theron Catlin Bennett, B. S., Vice-President of the Victor Cremer Co., Music Publishers, Chicago, Ill.

Elizabeth Koger (nee Coleman), B. S., Housewife, Taos, N. M.

Elizabeth C. Foster, B. S., Teacher, Las Cruces, N. M.

Frances French, B. S., Teacher, Las Cruces, N. M.

James Stanislaus Macgregor, M. S., Instructor in Steam Engineering, Columbia University, New York City.

Class of 1903

Fannie Ford, B. S., Teacher, Las Cruces, N. M.

Maude McFie, B. S., Housewife, Saltillo, Mexico.

Orrick B. Metcalf, M. S., Mesilla, N. M.

Ina M. Nelson, B. S., A. B., Analytic Laboratory, El Paso, Texas.

Class of 1904

Clarence D. Case, B. S. in Ag., Ranchman, Las Cruces, N. M.

Lotte Foster, B. S., at home, Agricultural College, N. M.

Orpha Bennett Hobbit, B. S., Housewife, Agricultural College, N. M.

Pearl C. Miller, B. S., Teacher of Domestic Science, Sherman Institute, Riverside, Calif.

Rowena Poe (nee Mott), B. S., Housewife, Mesilla Park, N. M.

Class of 1905

Thomas B. Green, B. S. in Ag., Deceased, 1905.

Annetta May Harney, B. S., Student, Normal School, San Diego, Calif.

Reginald H. Hart, B. S. in Ag., Newspaper work, Seattle, Wash.

Benjamin F. Nabours, B. S. in M. E., Ranchman, Estey, N. M.

Rafael Ramirez, B. S. in Ag., Deceased, June, 1907.

Harry H. Schutz, B. S., B. S. A., Cornell, 1907, Ranchman, El Paso, Texas.

Class of 1906

John F. Blinn, B. S., Assay Office of Kansas City Consolidated Smelter, El Paso, Texas.

Marie Anne Blinn, B. S., Teacher, Hood River, Oregon.

John William Boutz, B. S. in Ag., Agriculturist, Harris, Sask., Canada.

Archie A. Brown, B. S. in M. E., Draughtsman in Engineer's Office, S. P. Ry., San Francisco, Calif.

Ulysses G. Brown, B. S. in M. E., Draughtsman for the Fouts Cable Loco. Co., San Francisco, Calif.

Jose A. Bruno, B. S. in M. E., Planter, Guayama, Puerto Rico.

Ruth Coleman, B. S., Teacher in City Schools, El Paso, Texas.

Guy C. Given, B. S., Assistant Chemist, Experiment Station, State College, Penn.

Earl Addison Graham, B. S. in M. E., Westinghouse Company, Pittsburg, Pa.

Charles DeWitt Miller, B. S., Assistant to Territorial Irrigation Engineer, Santa Fe, N. M.

Bertha Peet, B. S., at home, Monticello, Ind.

Class of 1907

Vicente Davila, B. S. in M. E., Ranchman, Sabinas, Mexico.

Ralph B. Deemer, B. S., Second Assistant in Chemistry, Experiment Station, State College, Pa.

Allen G. Graham, M. S. A., Teacher of Agriculture in the Philippine Islands.

John George Miller, M. E., Teacher of Mech. Engin. in the Philippine Islands.

Jose Quintero, B. S. in M. E., Assayer Hacienda Bonanza, Zacatecas, Mexico.

Paul C. Standley, B. S., Assistant in Biology, New Mexico College of Agriculture and Mechanic Arts, Agricultural College, N. M.

Class of 1908

Dean W. A. Bloodgood, B. S. in M. E., Kingston, N. M.

J. Maughs Brown, B. S. in C. E., Agricultural College, N. M.

Philip Dessauer, B. S. in M. E., Las Cruces, N. M.

William Endicott, B. S. in M. E., Lake Valley, N. M.

William W. Gallacher, B. S. in M. E., White Oaks, N. M.

George G. Heide, B. S. in M. E., Assistant to the City Secretary of the Y. M. C. A., El Paso, Texas.

Claude P. Henry, B. S., Yazoo City, Miss.

H. Cornelius Henry, B. S., Yazoo City, Miss.

Earl C. Hornbrook, B. S. in M. E., Elm Grove, W. Va.

Jesse Mundell, B. S. in Ag., Assistant in Horticulture, New Mexico College of Agriculture and Mechanic Arts, Agricultural College, N. M.

William Pattison, B. S. in M. E., Gibson, N. M.

James Poe, B. S. in Ag., Superintendent of the O. C. Snow Alfalfa Ranch, Mesilla Park, N. M.

Wilbur L. Powers, B. S. in Ag., Tiskilwa, Ill.

Fernando Quintero, B. S. in Ag., Las Cruces, N. M.

James A. Steel, B. S., Las Cruces, N. M.

Jay B. Stoneking, B. S. in M. E. and M. E., Rosedale, N. M.

Maggie May Stover, B. S., Elk, N. M.

Justin B. Weddell, B. S., 1550 Clarence Ave., Cleveland, Ohio.

C. P. Wilson, B. S., with the F. B. Lester Co., Mesilla Park, N. M.

Catalog of Students

Graduate Students

Deemer, Ralph B.	Agricultural College
Graham, Allen G	Agricultural College
Miller, John G.	Santa Fe
Standley, Paul C.	Agricultural College
Stoneking, Jay B	Rosedale

Senior

Bloodgood, Dean W. A.	Kingston
Brown, Maughs J.	Mesilla Park
Dessauer, Philip	Las Cruces
Endicott, William	Lake Valley
Gallacher, William	White Oaks
Heide, George G.	Central
Henry, Claude P.	Yazoo City, Miss.
Henry, Cornelius H	Yazoo City, Miss.
Hornbrook, Earl C.	Elm Grove, W. Va.
Mundell, Jesse E.	Agricultural College
Pattison, William	Gallup
Poe, James R	Mesilla Park
Powers, W. L.	Tiskilwa, Ill.
Quintero, Fernando	Las Cruces
Steel, James A.	Las Cruces
Stoneking, Jay B.	Rosedale
Stover, Maggie May	Elk
Sweet, Jacob A.	Mesilla Park
Waddell, Justin R	Cleveland, O.
Wilson, C. P	Mesilla Park

Junior

Alleman, Herbert H	Chihuahua, Mex.
Friend, Lois	Las Cruces
Hyatt, John J.	Deming
McVicker, Alexander	Gallup
Pritchard, J. Leroy	Nuevas Casas Grandes, Mex.
Ramirez, Juan M.	Las Cruces
Stewart, Herbert C.	Mesilla Park
Thompson, Ruth	Mesilla Park
Uranga, Armando R.	Mesilla Park
Walker, Lancelot F	Mesilla Park

Sophomore

Ames, Walter R.	Las Cruces
Baker, Stuart K.	Las Cruces
Deemer, Dixon F.	Mesilla Park

Agricultur-
al College

Ende, Arner	Ballston Spa, N. Y.
Enriquez, Ignacio	Chihuahua, Mex.
Foster, Doris....	..Las Cruces
Fraker, Arthur .	...Ocate
Goebel, Gordon ..	Santa Fe
Oliver, Ruth E. .	....Fierro
Quesenberry, Elizabeth	Las Cruces
Redding, Edward	211½ S. A. St., El Paso, Tex.
Redding, Vivian .	211½ S. A. St., El Paso, Tex.
Romero, Carlos ..	Chihuahua, Mex.
Sessoms, Ruby ..	Las Cruces
Williams, Clarence	E. Las Vegas

Freshman

Campbell, W. E.	Mesilla Park
Elliott, R. H.	Mesilla Park
Fitzgerald, Percy C. .	...Roswell
Herman, Leslie .	Globe, Ariz.
Hines, Raye	Mesilla
Haggart, John K.	121 Monroe St., Topeka, Kan.
Isaacks, Emett .	Las Cruces
Jacobs, Harry	Capitan
Johnson, J. Stubbs	10 W. 123 St., New York, N. Y.
Johnson, Walter	Las Cruces
Lander, Frank .	Yoakum, Tex.
Mayer, Bertha .	White Oaks
Mayer, Paul	..White Oaks
McCowen, Henry	Las Cruces
Merrill, Egbert .	Santa Rosa
McGregor, Grant	Lake Valley
McIver, Lysander	Mesilla Park
Powers, John	Santa Rita
Quesenberry, George P.	Las Cruces
Stewart, Rupert	..Mesilla Park
Stover, Allie	Elk
Thompson, E. C. .	.Yazoo City, Miss.
Thomas, Leonard	..Roswell
Tracy, Mary	Deming
Wilson, Earl J. .	.Kingston
Windsor, Olaf ..	.Santa Fe
Womack, Samuel	...Roswell

Special

Boone, Simon	Las Vegas
Birt, Mary ..	....Mesilla Park
Brownlee, Paul .	Las Cruces
Buchanan, Henry	...El Paso, Tex.
Carrera, Emile ..	...Las Cruces
Dingeman, Albert	...El Paso, Tex.
Dunlap, Alice	.....Las Cruces
Erdis, Ellwood	Namiquipa, Mex.

Gilliam, Rex E	Mesilla Park
Hall, James ..	Nutt
Leonard, Albert	Boston, Mass.
Llewellyn, W. H. H., Jr.	Las Cruces
McWilliams, DeWitt .	Clifton, Ariz.
McCowen, Sophia	..Las Cruces
Phillips, Shelby .	..........Nutt
Reames, Zilpha	.Mesilla Park
Seeger, May .	Alamogordo
Skaggs, T. V.	Colorado Springs, Colo.
Stewart, Charles	..El Paso, Tex.
Simpson, George .	Corona
Tankersley, E. Guy	El Paso, Tex.
Taylor, George ..	Mesilla Park
Tipton, Mrs. D. W.	Mesilla Park
Walters, Blanche	Ames, Iowa
Willis, Herbert	Farmington
Yoast, Mamie	Las Cruces

Agricultur-
al College

Stenography

Carroll, Louis .	Chihuahua, Mex.
Deemer, Phyllis	....Mesilla Park
Deemer, Mrs. Prude	....Mesilla Park
Forwood, May	Las Cruces
Forsyth, Harvey	Ft. Bayard
Gilliam, Rex E	....Mesilla Park
Jennings, John J. ..	...Gibson
Kelley, Martin L. ..	.Hillsboro
Krick, Ida	Santa Fe
Lipscomb, Rowena .	Santa Rosa
Lucero, Francisco, F.	.Las Cruces
Larson, Charlotte ..	Springer
Mandell, Bertha	Mesilla Park
Newberry, Maude .	..Mesilla Park
Parker, Belle .	Tucumcari
Pattison, Thomas ..	.Gallup
Sheppard, Alice L. ..	...Douglas, Ariz.
Skidmore, Frank ...	..Bellevue, Ariz.
Tipton, Mrs. D.	....Mesilla Park
Turner, Romero	Las Cruces
Wakefield, Clara ...	........Victoria
Walker, Susie	..Mesilla Park
Wilson, Oscar	.....Lake Valley
Wilson, Ruth	....Alamogordo
Wright, Olive	..Douglas, Ariz.

Preparatory Department

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Senior Preparatory

Beach, Gilbert	Roswell
Buvens, Inez	Mesilla Park
Buvens, James	Mesilla Park
Craemer, Hilda	Mesilla Park
Engleking, Conrad	El Paso, Tex.
Given, Paul	Hillsboro
Harwell, Roland	Silver City
Keese, Oliver	Mesilla Park
Lyon, Edwin	Las Cruces
Mayberry, Pearl	Las Cruces
O'Brien, Nellie	Las Cruces
Parks, Olive	Lake Valley
Poe, Archie	Mesilla Park
Quesenberry, Richard	Las Cruces
Rabb, Ocie	Deming
Ricketson, Olive	Lake Valley
Womack, Riley	Roswell

Junior Preparatory

[illegible]	[illegible], Chihuahua, Mex.
Canning, Francis	Carrizozo
Carlisle, Hugh	Carrizozo
Sostosa, Raymondo	Las Cruces
Crist, Audie	Duran
Davis, Nina	Mesilla Park
Dessauer, Noma	Las Cruces
Edwards, George	Mesilla Park
Gardiner, Otis	Magdalena
Gilliam, Carmen	Mesilla Park
Green, John	Tyron
Gregg, Fred	Estancia
Harrison, Erastus	Tucumcari
Hirsch, Homer	Hillsboro
Hockett, Anna	El Paso, Tex.
Howell, Burt	Fierro
Howard, Sidney	Mesilla Park
Hyatt, Alonzo	Deming
Kirwan, Mary	Mesilla Park
Lane, Uil	Las Cruces
Longbottom, John	Lake Valley
McWilliams, DeWitt	Clifton, Ariz.
Posey, Robert	Cloudcroft
Roberts, Robert	Las Cruces
Russell, Eulie	Magdalena
Smith, Lena	Cloudcroft

Stuart, Carrie	Mesilla Park
Turner, Morris	Las Cruces
Wharton, Clifton	Alamogordo

A Class

Atkinson, Jesse	Estancia
Atkinson, Marshall	Estancia
Andress, Donald	Morenci, Ariz.
Burke, Edith	Las Cruces
Brown, Doris	Las Cruces
Brown, Stanley	Las Cruces
Baker, Roy	Las Cruces
Berkey, Frank	Las Cruces
Beddow, Reese	Gallup
Clayton, Verner	Tularosa
Chavez, Eulalio	Chihuahua, Mex.
Crist, Henry	Duran
Drury, Miner	Wilmett, Ill.
Edwards, Harold	Las Cruces
Evans, Oscar	Roswell
Ford, Cora	Las Cruces
Ford, Willie	Las Cruces
Frenger, Reymond	Las Cruces
Fite, Burton	Dawson
Fullerton, Elmer	Socorro
Goddard, Sidney	Greenwood
Gilliam, Rodney	Mesilla Park
Holt, Edwin	Las Cruces
Hall, William	Nutt
Harrison, Jeff	Tucumcari
Henderson, Emmitt	Baird, Tex.
Hearn, Milbry	Deming
Longbottom, Onis	Lake Valley
Lohman, Oliver	Las Cruces
Lemon, Fred	Las Cruces
Lindauer, Herman	Deming
Lacy, Erastus	Corona
Larson, Louis	Springer
Melton, Chandler	Clayton
Pohl, Ella	Belen
Parks, Joseph	Lake Valley
Parker, Charles	Las Cruces
Phelps, Donald	West Plains, Mo.
Pino, Ottie	El Paso, Tex.
Prude, Andrew	Mescalero
Romero, José	Las Cruces
Roble, Carlos	Las Cruces
Robbins, John	Pinos Altos
Scoggins, Belle	Mesilla Park
Spivey, Leda	El Paso, Tex.
Sanders, Robert	Hillsboro
Simpson, George	Corona

Tilletson, Ella	Lower Peñasco
Talavera, Renaldo	Chihuahua, Mex.
Tracy, Samuel	Deming
Taylor, George	Mesilla Park
Young, Leo	Roy City, Tex.

B Class

Alderete, Jose	Organ
Apodaca, Ricardo	Las Cruces
Argon, Hermanio	Monticello
Bell, Charles	Mayhill
Berkey, Grace	Las Cruces
Birdwell, Park	Las Cruces
Bletcher, Maitland	Albuquerque
Buvens, Richard	Mesilla Park
Carroll, Frederick	Las Cruces
Clayton, Cubia	Tularosa
Dalglish, Archie	Duran
Dessauer, Florence	Las Cruces
Elliott, Charles	Park View
Figuero, Angel	Las Cruces
Forwood, Walter	Las Cruces
Foster, Irwin	Las Cruces
Freeman, California	Las Cruces
Freeman, George	Las Cruces
Frizzell, William	Cloudcroft
Green, Hattie	Tyrone
Green, Vica	Tyrone
Hager, Mabel	Mesilla Park
Hall, Henry	Nutt
Held, Pauline	El Paso, Tex.
Howell, William	Fierro
Isaacks, Jesse	Las Cruces
King, Elmer	Farmington
Klauer, Edna	Topeka, Kan.
Kuester, Frederick	Las Cruces
Larquier, Pedro	Chihuahua, Mex.
Lester, Edward R.	Mesilla Park
Llewellyn, Stanley C.	Las Cruces
Longbottom, Maggie	Lake Valley
Maloney, James	Las Cruces
Mandell, Jessie	Mesilla Park
Martinez, Pedro	Park View
Merchant, Susie	Kelly
Moreno, George	Sierra Mojada, Mex.
Nabours, J. O. Jr.	Three Rivers
Nevarez, Miguel	Las Cruces
O'Rear, Margaret	Magdalena
Potts, Harry	Las Cruces
Quesenberry, Fred	Las Cruces
Ricketson, May	Mesilla Park
Rubiolo, Grace	El Paso, Tex.

Salcido, Felipe	Las Cruces
Sampson, Clarence	Las Cruces
Scoggins, Leota	Mesilla Park
Scoggins, Ula	Mesilla Park
Sessoms, Ralph	Las Cruces
Smith, Ollie	Cloudcroft
Speight, Bessie	Albuquerque
Talevera, Ernesto	Chihuahua, Mex.
Upton, Philip D.	Deming
Uranga, Beningo	Mesilla Park
Walker, Rose	Mesilla Park
Walters, Charles	Organ
Willson, Elmer	Lordsburg

SPECIAL CLASS

Preparatory

Adams, Walter	Theological Seminary, Va.
Boat, Roy A.	Aztec
Barela, Serafin	Las Cruces
Bell, Thomas	Mesilla Park
Brown, Clarence	Corona
Chacon, Amarante	Arroyo Hondo
Chavez, Jose	San Rafael
Cowan, Clarence	Bellevue, Ariz.
Cooper, Bruce	Reserve
Cordova, Fidel	Ysleta, Tex.
Dossey, George	Las Cruces
Dossey, Sarah	Las Cruces
Field, Daisy	Puertecito
Lacy, Elijah	Corona
Lawrence, Charles	El Paso, Tex.
Lawrence, Josephine	El Paso, Tex.
Martin, Earl	Corona
Miera, Juan	Las Cruces
Molinar, Francisco	Chihuahua, Mex.
Molinar, Enrique	Chihuahua, Mex.
Moser, Robert	Cloudcroft
McDougal, Artie	Deming
Perez, José	Las Cruces
Robbins, Leslie	Pinos Altos
Sampson, Ralph	Las Cruces
Sampson, Royce	Las Cruces
Soto, Sarah	Las Cruces
Soto, Zenaida	Las Cruces
Sanders, Barney	Tularosa
Speight, Stella	Albuquerque
Tinnon, Myrtle	Carrizozo

List of Music Pupils

Piano

- Boone, Zuma
- Buvens, Inez
- Coats, Alva J.
- Crist, Audie
- Hines, Raye
- Kirwan, Mary
- Larsen, Lottie
- Laurence, Josephine
- Mayer, Bertha
- O'Rear, Margaret
- Seeger, May
- Speight, Bessie
- Tracy, Mary
- Wright, Olive

Violin

- Deemer, Ralph

Flute

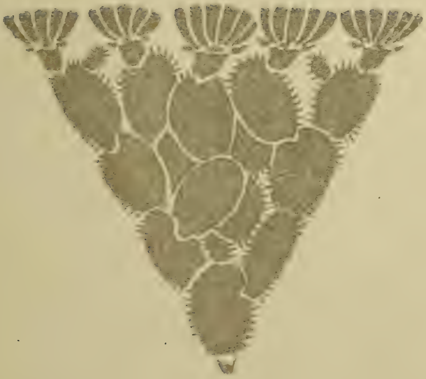
- Fleming, B. F.

Voice

- Anderson, John
- Boone, Zuma
- Burke, Edith
- Coats, Alva J.
- Crist, Audie
- Davis, Nina
- Deemer, Phyllis
- Edwards, Margaret
- Henry, Cornelius
- Kirwan, Mary
- Larsen, Lottie
- Lewis, Lucy
- Mandell, Bertha
- McCowen, Sophia
- Miller, Charles
- Poe, James R.
- Skidmore, Frank
- Thomas, Jennie A.
- Young, Donald

List of Students Tabulated According to Classes

Graduate Students	5
Seniors	20
Juniors	10
Sophomores	15
Freshmen	27
Special (College)	26
Stenography	25
Senior Preparatory	17
Junior Preparatory	29
A Class	52
B Class	58
Special (Preparatory)	31
Music Students	35
Total	350
Names repeated	29



Program of Recitations   First Semester   Forenoon

Time	Freshman	Sophomore	Junior	Senior	Stenography and Commerce
8:30	Physics (M. W. F.) Chemistry (T. Th.)	Analytic Geom. (M. W. F.) Spanish Farm Management (T. Th.) Field Crops (M. W. F.)	Calculus (T. Th.) Domestic Science T. Th.)	Applied Mechanics (M. W. F.) Engineering Struct. (T. Th.) Dietary Studies (M. W.) Advanced American Hist. (T. Th. F.)	Adv. Stenography Spanish
9:25		Physical Lab. (W. F.) Descriptive Geom. (M. T. Th.) Field Crops (F.) Dairying (M. W.)	Mechanics (M. T. Th.) Mechanism (W. F.) Spanish Agricultural Chem. (M. W. F.) Plant Breeding (T. Th.) Electrical Engineering (W. F.)	Dietary Studies Electrical Engineering (W. F.) Hydraulics (M. T. Th.)	Stenography Spanish
10:20		Qual. Analysis (T Th.) Physical Lab. (W. F.) Dairying (M.)	Political Economy (M. W. F.) Debating (T. Th.)		Spelling (M. W. F.) Special Work (T. Th.)
11:15	Military Drill (M. W. F.) Care and Management of Live Stock (T. Th.) General History T. Th.)	Military Drill (M. W. F.) Qual. Analysis T. Th.) Home Decoration (F.)	Astronomy (M. T. W. Th.) Calculus (F.) Mechanism (M.) Seminar (F.) Electrical Engineering (M.)	Dynamo Elec. Machinery (T. W. Th.) Psychology (M. W. F.) Advanced Rhetoric (T. Th.) Electrical Engineering (M.) Engineering Structures (F.)	Military Drill (M. W. F.) Spanish Stenography T. Th.) Bookeeping (T. Th.) Civics (T. Th.)

Program of Recitations First Semester Afternoon

Time	Freshman	Sophomore	Junior	Senior	Stenography and Commerce
1:30	Composition (M. W. F.) El. Bibliography (T.) El. Public Speaking (Th.)	English Literature (T. W. Th. F.) Public Speaking (M.) Pomology (M. W. F.) Economic Entomology (T. Th.)	Mineralogy (M. W. F.) El. Surveying (Th.) Grain Judging (W. F.) Adv. Dairying (T. Th.) Seminar (M.)	Geology (M. W. F.) Home Nursing (T. Th.)	Composition (M. W. F.) Elem. Bibliography (T.) Elem. Public Speaking (Th.) English Literature (T. W. Th. F.) Public Speaking (M.) Commercial Geog. (M. W. F.) Commercial Arith. (T. Th.)
2:00	Woodwork & Forging (M. W. F.) Drawing (T. Th.) Breeds of Cattle, Sheep and Goats (M.) Conformation and Soundness (W.) Sewing (M. W. F.)	Zoological Lab. (M. W. F.) Wood Turning (T. Th.) Surveying (M. W.) Veterinary Elements (Th.) Foundry (F.) Millinery (T.)	Mineralogy (M. W. F.) Bench Work in Iron (T. Th.) El. Surveying (T. Th.) Domestic Science (M. W. F.) Laundering (Th.) Plant Diseases (Th.) [illegible] (F.) Grain Judging (W.) Adv. Dairying (T.) Seminar (M.)	Machine Design (M. W.) Engineering Lab. (T. Th.) Drawing and Designing (M. W.) Dynamo Design (M. W.)	Stenography
[illegible]	General History (T.) Bacteriology (T. Th.) Woodwork & Forging (M. W. F.) Drawing (T. Th.) Breeds of Cattle, Sheep and Goats (M. W.) Sewing (M. W. F.)	Zoological Lab. (M. W. F.) Wood Turning (T. Th.) Surveying (M. W.) Veterinary Elements (T. Th.) Millinery (T.) Home Decoration (Th.)	Math. and Elec. [illegible] (F.) Bench Work in Iron (T. Th.) German El. Surveying (Th.) Domestic Science (M. W. F.) Forestry (W. F.)	Machine Design (M. W.) Engineering Lab. (T. Th.) Seminar (F.) Drawing and Designing (M. W.) Dynamo Design (M. W.)	Bookkeeping (M. W. F.) Commercial Letter Writing (T. Th.)
3:30	Solid Geometry (M. W. F.) Trigonometry (T. Th.)	Surveying (M. W.) German	El. Surveying (Th.)		Economics (M. T. Th.) Commercial Arith. (F.) Civics (W.)

Program of Recitations Second Semester Forenoon

Time	Freshman	Sophomore	Junior	Senior	Stenography and Commerce
8:30	Physics (W. F.) Chemistry (M. T. Th.)	Calculus (M. W. F.) Spanish Tillage (M. W.) Irrigation Practice (F.) Soil Physics (T. Th.)	Applied Mechanics (M. W. F.) Graphic Statics (T. Th.) Dietetics (M. W.) Textiles (T. F.)	Thermodynamics (T. Th.) Power Plants (M. W. F.)	Adv. Stenography Spanish
9:25	Farm Accounts (W. F.) Farm Power (T. Th.)	Physical Lab. (W. F.) English Literature (M. T. Th.) Soil Physics (M. T. Th.)	Political Economy (M. W. F.) Dietetics (T. Th.) Metallurgy of Iron and Steel (T.) Viticulture (T. Th.)	Adv. Rhetoric (W. F.)	Stenography English Literature (M. T. Th.) Commercial Law
10:20	Farm Power (Th.) Olericulture (T.) Sewing (M. W. F.) Farm Accounts (W.)	Quant. Analysis (T. Th.) Physical Lab. (W. F.) Landscape Gardening (W. F.) Meteorology (M.) Domestic Science (M. W. F.)	Ry. Eng. Office Work (Th.) Dietetics (T. Th.) Agricultural Chem. (M. W. F.) Viticulture (Th.)		Spelling (M. W. F.) History of Finance
11:25	Military Drill (M. W. F.) Olericulture (T. Th.) Sewing (M. W. F.)	Military Drill (M. W. F.) Quant. Analysis (T. Th.) Domestic Science (M. W. F.)	Astronomy (M. W. F.) Railway Eng. Office Work (Th.) Ry. Surveying (T.) Dietetics (T. Th.) Steam Engines and Boilers (M. W. F.) Agricultural Chem. (M. W. F.)	Astronomy (M. W. F.) Gas and Oil Engines (T.) Contracts and Specifications (Th.) Psychology (T. Th.)	Military Drill (M. W. F.) Bookkeeping (T. Th.)

Program of Recitations Second Semester Afternoon

Time	Freshman	Sophomore	Junior	Senior	Stenography and Commerce
1:05	Literature (M. T. W. Th.) El. Public Speaking (F.)	English Literature (F.) Public Speaking (W.) Topographical Surveying (M. T. Th.) Principles of Feeding Livestock (T. W. Th. F.)	Debating (T.) Adv. Bibliography (Th.) Ry. Surveying (M. W.)	Irrigation Field Work (W.) Seminar (F.) Irrigation (M. T. Th.) Alternating Currents (T. Th.) Electric Power Trans. (M.)	English Literature (F.) Public Speaking (W.) Literature (M. T. W. Th.) El. Public Speaking (F.)
2:00	Zoology (F.) Woodwork & Forging (M. W. F.) Drawing (T. Th.) Breeds of Horses, Swine and Poultry (Th.) Horseshoeing (T.)	Patternmaking and Foundry (M. T. Th.) Drawing (W. F.) Physiology (M. W. F.) Topographical Surveying (T. Th.) Plant Physiology (T. Th.) Farm Architecture (M. W.) Irrigation Practice (F.) Domestic Science (T. Th.)	Machine Shop (T. Th.) Machine Design (T. W. Th. F.) Ry. Surveying (M. W.) Railway Eng. Office Work (T. Th. F.) Spanish Animal Breeding (W. F.)	Irrigation Field Work (W.) Mechanical Eng. Lab. (F.) Bridge Design (M) Electrical Eng. Lab. (W.) Historical Geology (M. W. Th.)	Stenography Spanish
2:55	Zoology (M. W. F.) Woodwork & Forging (M. W. F.) Drawing (T. Th.) Organic Chemistry (T. Th.) Breeds of Horses, Swine and Poultry (T. Th.)	Patternmaking and Foundry (M. T. Th.) Drawing (W. F.) Topographical Surveying (T. Th.) Plant Physiology (T. Th.) Farm Architecture (M. W.) Irrigation Practice (F.)	Machine Shop (T. Th.) Machine Design (T. W. Th. F.) Ry. Surveying (M. W.) Railway Eng. Office Work (T. Th. F.) German	Irrigation Field Work (W.) Mechanical Eng. Lab. (F.) Bridge Design (M.) Electrical Eng. Lab. (W.) Household Sanitation	Spanish Stenography Bookkeeping
3:50	Higher Algebra (M. W. F.) Trigonometry (T. Th.)	Topographical Surveying (T. Th.) German	Ry. Surveying (M. W.)	Irrigation Field Work (W.)	Bookkeeping

Program of Recitations First Semester Preparatory

Time	First Year	Second Year	Third Year	Fourth Year
8:00	Orthography and Reading	Elementary Algebra	Advanced Grammar (M. T. W. Th.)	American Literature (T. W. Th.) Botany (F.)
9:05	English Grammar	Elem. English Composition (T. W. Th. F.) Elem. Expression (M.)	Elem. Physics (M. T. Th.) Elem. Expression (F.)	Plane Geometry
10:20	Cooking (M. W.) Agriculture (M. F.)	Cooking (T. Th.) Agriculture (W. Th.)	Algebra	General History (M. W. F.)
11:15	Military Drill (M. W. F.) Cooking (M. W.) Agriculture (T.)	Military Drill (M. W. F.) Cooking (T. Th.) Agriculture (Th.)	Military Drill (M. W. F.) Bookkeeping (T. Th.)	Military Drill (M. W. F.)
1:05	Arithmetic	School Management	Elements of Latin Elementary Agronomy (T. Th.)	Botany (T. Th.) Expression (W.)
2:00	Theory and Practice of Teaching	Music and Drawing	Wood Work (M. W. F.) Plain Sewing (T. Th.)	Latin Readings Shop Work Agriculture
2:55	Geography	Physiology	Wood Work (M. W. F.) Plain Sewing (T. Th.)	Shop Work Agriculture
3:50				

Program of Recitations Second Semester Preparatory

Time	First Year	Second Year	Third Year	Fourth Year
8:30	U. S. History	Higher Arithmetic	Advanced Grammar (M. T. W. Th.) Elem. Expression (F.)	American Literature (M. T. Th.) Expression (W.) Debate (F.)
9:25	Special Methods Agriculture (M.)	Physiography	Elementary Physics (M. T. Th.) Plain Sewing (W. F.)	Plane Geometry
10:20	English Grammar	Elementary Psychology Agriculture (T. Th.)	Algebra	Latin Readings
11:15	Military Drill (M. W. F.) Agriculture (F.)	Military Drill (M. W. F.) Agriculture (Th.)	Military Drill (M. W. F.) Bookkeeping (T. Th.) Plain Sewing (T. Th.)	Military Drill (M. W. F.)
1:05	Arithmetic	Sewing (Model Books) (M. T. W. Th.)	Elements of Latin	General History (M. W. F.) Botany (T. Th.)
2:00	Hygiene (M. W.)	Civics	Iron Work (W. F.) Horticulture (T. Th.) Zootechny (M.)	Shop Work Agriculture
2:55	Music and Penmanship	Elem. Eng. Comp. (M. T. W. Th.) Elem. Expression (F.)	Iron Work (W. F.) Horticulture (T. Th.) Zootechny (M.)	Shop Work Agriculture
3:50				

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NEW MEXICO COLLEGE OF AGRICULTURE AND MECHANIC ARTS

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COLLEGE RECORD

NINETEENTH

ANNUAL CATALOG

New Mexico College of Agriculture and Mechanic Arts

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AGRICULTURAL COLLEGE

Catalog of Students for 1908-1909	Announcements for 1909-1910

Published Quarterly by the College

Entered as second class matter August 21, 1907, at the
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MAY, 1909

SANTA FE, N. M.
NEW MEXICAN PRINTING COMPANY
1909.

CALENDAR FOR 1909-1910

August 31, Tuesday, Registration and Entrance Examinations.
September 1, Wednesday, First Semester begins.
October 25-26, Monday and Tuesday, Quarterly Examinations.
November 25, Thursday, Thanksgiving Day.
December 21-22, Tuesday and Wednesday, Examinations, end of First Semester.
December 23-January 3, Holiday Recess.
January 4, Tuesday, Registration and Supplementary Examinations.
January 5, Wednesday, Second Semester begins.
February 22, Tuesday, Washington's Birthday.
March 10-11, Thursday and Friday, Quarterly Examinations.
May 6, Friday, Field Day.
May 14, Saturday, Exercises of Music Department.
May 15, Sunday, Baccalaureate Sermon, 11:00 a. m.
May 16-17, Monday and Tuesday, Examinations, end Second of Semester.
May 18, Wednesday, Exercises of Preparatory Department.
Class Day Exercises.
Alumni Banquet.
May 19, Thursday, Commencement Exercises 10:30 a. m.
Alumni Business Meeting.

BOARD OF REGENTS

R. E. McBride, President, Las Cruces.
Vincent May, Sec'y and Treas., Las Cruces.
J. M. Webster, Hillsboro.
Hiram Hadley, Mesilla Park.
George Arnot, Albuquerque.

Advisory Members

Hon. George Curry, Governor of New Mexico, Santa Fe.
Hon. J. E. Clark, Territorial Superintendent of Public Instruction, Santa Fe.

FACULTY

Winfred Ernest Garrison, A. B., Yale, 1894; Ph. D., University of Chicago, 1897. President, and Professor of Economics.

Luther Foster, M. S. A., Iowa State College. Director of the Experiment Station and Dean of Agriculture.

Clarence T. Hagerty, B. S., Notre Dame University, 1890; M. S., ibid., 1895. Professor of Mathematics and Astronomy.

Elmer O. Wooton, B. S., Earlham College, 1889; A. M., ibid, 1896. Professor of Biology and in charge of Geology.

John Dabney Tinsley, B. S., New Mexico College of Agri. and Mech. Arts. 1899. Professor of Physics and Soil Physics.

Merritt Lorraine Hoblit, A. B., Kalamazoo College, 1901; A. B., University of Chicago, 1901. Professor of Spanish and Latin.

Raleigh Frederick Hare, B. S., Alabama Polytechnic Institute, 1892; M. S., ibid., 1893. Professor of Chemistry.

John R. Macarthur, A. B., University of Manitoba, 1892; Ph. D., University of Chicago, 1903. Professor of English.

Fabián García, B. S., New Mexico College of Agriculture and Mechanic Arts, 1894; M. S. A., ibid., 1905. Professor of Horticulture.

Caroline W. Daniels, M. A., Ripon College. Associate Professor of English and Dean of Women.

Margaret H. Haggart, B. S., Kansas State Agricultural College, 1905. Professor of Household Economics.

John Oliver Miller, B. S., University of Colorado, 1899. Registrar, and Assistant in the Department of Stenography and Typewriting.

G. Eugene Lain, M. A., and M. S., Southern Iowa Normal School. Principal of Department of Stenography and Typewriting.

Burton P. Fleming, B. S., Utah Agricultural College, 1900; M. E., Cornell University, 1906. Professor of Irrigation Engineering.

P. E. McClenahan,* Ph. B., Iowa State University, 1905; A. M. ibid., 1906. Principal of the Preparatory Department.

Archibald Bruce Sage, B. S., New Mexico College of Agriculture and Mechanic Arts, 1900. Professor of Mechanical Engineering.

Charles P. George, Major U. S. Army, retired. Professor of Military Science and Tactics.

John H. Vaughan, A. B., University of North Carolina, 1904; A. M., ibid., 1905. Principal of the Preparatory Department and Associate Professor of History.

Florence J. Foster,* B. S., Montana Agricultural College, 1896. Associate Professor of Household Economics.

Singleton Reynolds Mitchell, B. S., Purdue University, 1902. Assistant Professor of Chemistry.

John A. Anderson, Assistant to the Registrar and in the Department of Stenography and Typewriting.

Lucy M. Lewis, A. B., University of Illinois, 1905; B. L. S., ibid., 1906. Librarian and Assistant in English.

Paul C. Standley,* B. S., New Mexico College of Agriculture and Mechanic Arts, 1907. Assistant Professor of Biology.

Arthur Watkins, L. T. S. C., London Tonic Sol Fa College, New England Conservatory. Director of Music.

Frank Stockton, B. S., University of Nebraska, 1907. Assistant Professor of Physics.

H. H. Simpson, B. S., Iowa State College. Assistant Professor of Animal Husbandry.

W. F. Schaphorst, B. S., South Dakota Agricultural College, 1905. Assistant Professor of Mechanical Engineering.

W. G. Hummel, * B. S. Illinois University. Assistant in Agronomy.

Jesse E. Mundell, B. S. A., New Mexico College of Agriculture and Mechanic Arts, 1908. Assistant in Horticulture.

J. R. Burkey, C. E., Ohio State University, 1908. Assistant Professor of Mathematics and Civil Engineering.

Ray Milton Wilcox, B. E., Columbia College of Expression, 1908. Assistant in English, in charge of Public Speaking.

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* Resigned June, 1909.

Josephine Morton, A. B., Drurg College, 1898. Assistant Librarian.

August P. Bjerregaard, Assistant in Chemistry.

Jay B. Stoneking, M. E., New Mexico College of Agriculture and Mechanic Arts, 1908. Assistant in Irrigation Engineering.

Wilbur L. Powers, * B. S. in Ag., New Mexico College of Agriculture and Mechanic Arts, 1908. Assistant in Soil Physics.

J. Jacob Grieb, * B. S. in M. E., Clarkson Memorial School of Technology, 1908. Assistant in Mechanical Engineering.

Ruth A. Gottlieb, M. D., Laura Memorial Medical College, Cincinnati, 1895: Assistant in the Preparatory Department.

Annie Ray Moss, Assistant in the Preparatory Department.

Mrs. Ethel McIver, Matron of Woman's Hall.

Etta Green, College Stenographer.

Elizabeth Oliver, Station Stenographer.

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* Resigned June, 1909.

PRESIDENT'S OFFICE

REGISTRAR'S OFFICE

FACULTY COMMITTEES

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L. M. Lewis, *ex officio.*

Athletics

B. P. Fleming, *Chairman;* R. F. Hare, J. O. Miller.

Literary Societies and Paper

J. R. Macarthur, *Chairman;* M. L. Hoblit, J. H. Vaughan.

NOTE.—The President is ex officio member of all committees.

The New Mexico College of Agriculture and Mechanic Arts offers the following courses of study:

College Courses:

- I Agriculture (four years)
- II Mechanical Engineering (four years)
- III Electrical Engineering (four years)
- IV Civil Engineering (four years)
- V Household Economics (four years)
- VI Commerce (four years)
- VII General Science (four years)
- VIII Stenography and Spanish Stenography (two years)

Secondary Courses:

- I College Preparatory (four years)
- II Industrial Course in Agriculture (four years)
- III Industrial Course in Mechanics (four years)
- IV Industrial Course in Domestic Science (four years)
- V Industrial Course in Business (four years)

Elementary Courses:

- I A Class (8th grade)
- II B Class (ungraded, for students over 16 years old)

EDUCATIONAL PURPOSE

The purpose of this institution is to teach the student those things which make for intelligent manhood and citizenship, and also to give him some special training which will enable him to earn a living. The purpose of the technical and industrial work is to teach him to make a better living; the purpose of all the work, both technical and cultural, is to teach him to live a richer and more useful life.

Each of the **College Courses** (except stenography) presupposes a full high school course for entrance, and requires four years for completion. They are, with the exception of the General Science course, professional courses. Each of them includes a thorough grounding in the fundamental sciences, a certain amount of general cultural work in English, history, economics and languages, and a large amount of both theoretical and practical work in the special subject of the course. We expect to turn out from these courses men of broad general education and with full technical equipment for the work of the several professions.

The **College Preparatory Course** gives the equivalent of the work done in a four-year high school course. The scarcity of good high schools in New Mexico makes it necessary to offer such a course for the benefit of students preparing for college. There are at present only eleven high schools in the Territory offering a full four-year course. In half of the counties there is not even one year of a high school course, and it is nearly a hundred miles by rail from the college to the nearest town in New Mexico which offers even a single year of high school work. It is therefore absolutely essential to maintain here a well equipped preparatory department where students from all parts of the Territory can get adequate preparation for college.

The **Elementary Courses** are maintained especially for the benefit of relatively mature students who have lived in communities affording scanty school advantages. This work, of course, is in no proper sense college work, but it needs to be done and there is no better place to do it than here. The boy who is from sixteen to twenty years old and has never had a chance to go to school much but wants to get a start and go as far as he can, deserves consideration. We can take care of him. The only requirement for admission is an earnest desire and fixed purpose to learn.

The **Industrial Courses** are now being introduced for the first time and may require explanation. These are courses of high school grade, the purpose of which is to prepare students for life instead of preparing them for college. Almost any boy can take a full college course if he has a strong and persistent desire for it, but the great majority do not and will not take it. Of the graduates of city high schools, only a relatively small per cent enter college and a still smaller per cent complete a college course. It is not right to plan the whole educational system in the interest of the wise few who go to college. This is especially true in an undeveloped territory like New Mexico. The problem is to provide for the boy or girl who, in a city, would go through high school and then leave school. The purpose is to give this boy or girl a four-year course beginning where the high school begins, which will really fit him for the life which he is to lead as a working citizen. Especial attention is invited to the outline of these Industrial Courses (pages 43, 44 45, and 47). It will be seen that in each course the students spend about two thirds of their time in work which has a general cultural and educational value, such as English, mathematics, history, and the natural sciences, and about one third in the study of a vocation.

A student who finishes the Industrial Course in Agriculture ought to be a practical and intelligent farmer. He will not be a profound specialist in Agriculture, but he ought to be able to manage a farm by modern methods and make money, and he ought furthermore to be an intelligent and useful citizen and a helpful member of society.

The boy who completes the Industrial Course in Mechanics should be a competent shop foreman, power-house superintendent, foreman on construction work, machinist, or electrical worker, or after some experience should be prepared for building and contracting.

The Business Course is not a course in Stenography. Its purpose is to give the most serviceable training to boys who expect to go into business either as clerks, salesmen, agents, book-keepers, accountants, bank employes, managers or proprietors of stores.

The Domestic Science Course will teach a girl how to cook plain wholesome meals, sew, care for the sick, furnish a house, maintain sanitary conditions, manage the affairs of a household. The art of living within one's income will receive special attention.

These are all practical courses. They are not preparatory courses in the sense of being designed to meet entrance requirements for higher courses. They are intended especially for students who expect to go no farther. Those who expect to take a full college course are urged to prepare for it by taking the college preparatory course. However, those who complete one of the industrial courses and then decide to enter college can do so. (See section on Requirements for Admission.)

ORIGIN

On February 28th, 1889 the 28th Legislative Assembly of New Mexico passed an act establishing the New Mexico College of Agriculture and Mechanic Arts. This institution is one of about fifty agricultural or "land grant" colleges established in the several states and territories of the Union in accordance with the provisions of an act of Congress approved July 2nd, 1862, commonly known as the Morrill Act. This historic measure marked the beginning of a new era in education. The purpose and scope of the institutions which were to be established under this act are set forth in the words of the act, which provides for a grant of land to each state for the establishment and maintenance of "at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." These colleges, then were to offer both "liberal and practical education," both cultural and professional training, for the benefit of the industrial classes, the people who work.

An act of Congress approved March 2nd, 1887, and known as the Hatch Act provided for the establishment and support of Agricultural Experiment Stations in connection with the various agricultural colleges "in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." The second Morrill Act, approved August 30th, 1890, provided an annual appropriation of federal funds to aid the states in supporting the agricultural colleges previously created.

In establishing the New Mexico College of Agriculture and Mechanic Arts and in accepting for it the appropriations which had been made by Congress, the legislature of the Territory, by its act of February 28th, 1889, further defined the character and purposes of the institution. It "shall be non-sectarian in character, devoted to practical instruction in agriculture, mechanic arts and natural sciences connected therewith, as well as a thorough course of instruction in all branches of learning bearing upon agricultural and industrial pursuits. The course of instruction of the college hereby created shall embrace the English language, literature, mathematics, philosophy, civil engineering, chemistry, animal and vegetable anatomy and physiology, the veterinary art, entomology, geology, political, rural and household economy, horticulture, moral philosophy, history, mechanics, and such other sciences and courses of instruction as shall be prescribed by the regents."

By its further act of February 26th, 1891, the legislature of New Mexico accepted the congressional appropriation of 1890 and accepted and consented to all the terms and conditions upon which it was made, including the principle that the Territory should make adequate provision for buildings, grounds, and general expenses of maintenance, while the funds received from the federal goverment are to be applied to the maintenance of the experiment station and to the cost of instruction and the facilities for instruction in certain specified branches.

In 1889 Las Cruces College was organized by Prof. Hiram Hadley. This furnished the nucleus of the College of Agriculture and Mechanic Arts which opened its doors for its first session on March 10, 1890, with Prof. Hadley as its first President.

INCOME

The revenues of the college are derived from the following sources:

1. The Morrill and Nelson funds from the United States under congressional acts of August 30, 1890, and March 4, 1907. These funds are available only for "instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural and economic sciences, with special reference to their application in the industries of life, and to the facilities for such instruction." The income from this fund for the year 1909-1910 amounts to $40,000 and it will increase $5,000 each year until it reaches $50,000.

2. The Hatch Fund, from the United States under congressional act of March 2, 1887. This fund is for the support of the Experiment Station and gives an annual income of $15,000 which must be applied solely to "paying the necessary expenses of conducting investigations and experiments, and printing and distributing the results." Only five per cent of this fund may be used for buildings or permanent improvements, and no part of it can be used for instruction or for general college purposes.

3. The Adams Fund, from the United States under con

gressional act of March 16, 1906, "for the more complete endowment and maintenance of the Agricultural Experiment Stations," and to be used only for "paying the necessary expenses of conducting original researches or experiments bearing directly on the agricultural industry of the United States. The provisions of this fund permit it to be spent only for research work of distinct originality and permanent scientific value. It amounts to $13,000 for the year 1909-10.

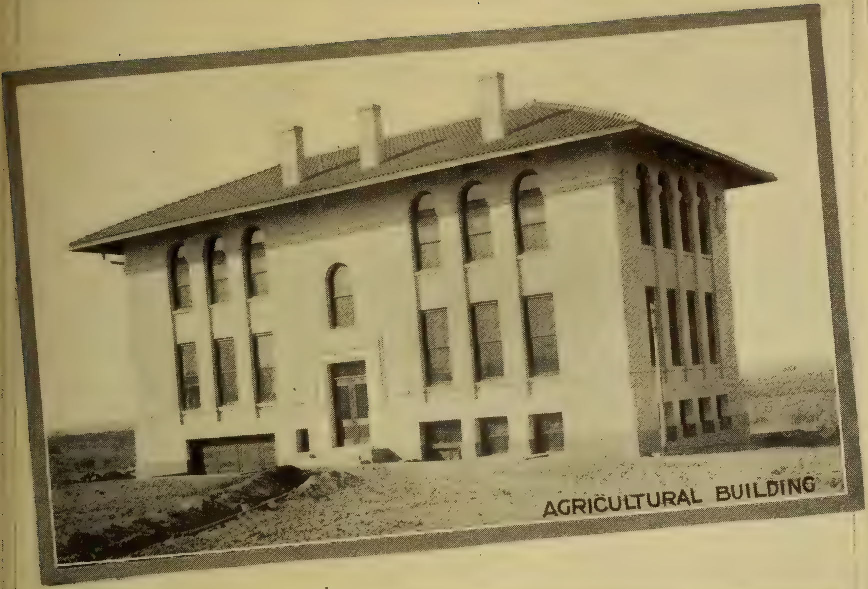
4. The territorial appropriation now amounting to $16,000 a year out of which must be paid the general expenses of administration and maintenance, repairs, insurance, care of buildings and grounds, fuel, light and water, printing, together with the salaries of administrative officers and of instructors in departments to which the Morrill Fund is not applicable, and the many miscellaneous expenses of an institution with a dozen buildings and over two hundred acres of land.

5. Miscellaneous receipts including the small amount received from student's fees, the sale of farm products, and about $1,000 a year received upon permanent invested funds.

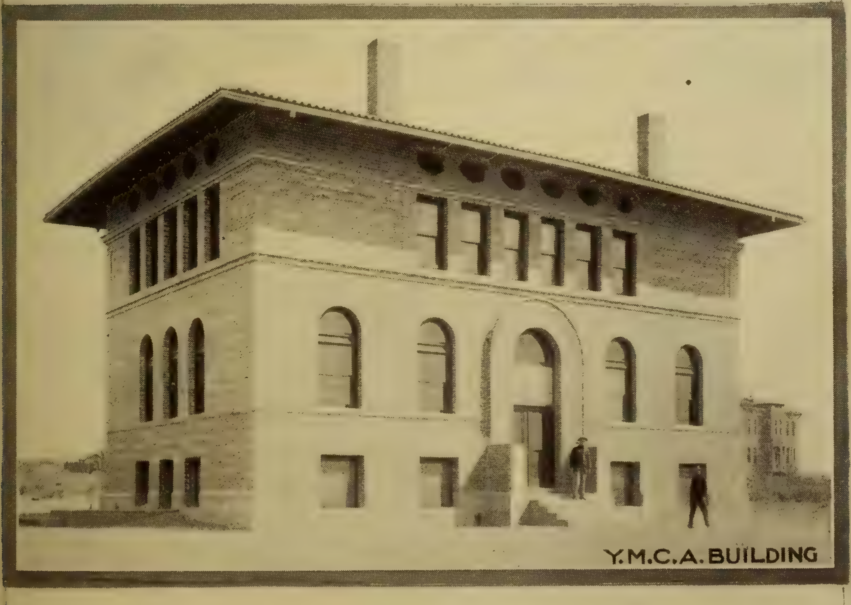
In addition to these sources of income, the college has an endowment consisting of 100,000 acres of land given by act of congress approved June 21, 1898 (the Fergusson Act). At present the College receives no income from this source since all receipts from leasing of these lands are held by the territorial treasurer to pay the interest and principal of a bond issue of $25,000 which was voted by the territorial legislature in 1901 for the erection of buildings.

LOCATION

The New Mexico College of Agriculture and Mechanic Arts is located in the lower Rio Grande valley in the south central part of the Territory. The college buildings are situated a little less than a mile east of the town of Mesilla Park and a little more than two miles south of Las Cruces, a thriving little city with about 4,000 inhabitants and the metropolis of the lower valley. El Paso, Texas, a city of nearly 50,000 population



AGRICULTURAL BUILDING



Y.M.C.A. BUILDING

and the junction of nine railroad lines, is only forty miles distant. The main line of the Atchison, Topeka and Santa Fe Railway from Chicago to El Paso runs through the college property. The College farm, including the fields of the Experiment Station, consists of about 180 acres of rich irrigated land, watered from the main Las Cruces ditch, which is served by the Leasburg Diversion Dam, the first project of the United States Reclamation Service completed in the Rio Grande valley. The campus, upon which are located the seven principal buildings of the College, is situated upon high ground at the edge of the mesa, commanding a broad view of the valley. Mesilla Park is a prosperous village containing several stores, a hotel, excellent public school, and Episcopal and Presbyterian churches. In Las Cruces, which is the commercial center of the rich and rapidly developing Mesilla Valley, are good public schools, a large convent conducted by the Sisters of Loretto, a mission school, and Presbyterian, Methodist, Catholic, and Baptist churches. College conveyances are run on Sunday for the accommodation of students who wish to attend church services in Las Cruces.

The magnificent climate and exceptional healthfulncss of the Mesilla Valley are far famed. The dryness and purity of the air, the mildness of the winter, and the almost continuous sunshine render it an attractive place of residence. The altitude is about 3,800 feet above sea level.

The College has its own postoffice, the name of which is Agricultural College, New Mexico. The freight, express and telegraph offices are at Mesilla Park.

Strangers will now find satisfactory temporary accommodations at Mesilla Park near the depot. They should then report to the president who will assist them in finding boarding accommodations.

BUILDINGS AND EQUIPMENT

The past year has witnessed a much needed improvement in the material equipment of this institution. Funds for building purposes at last became available and three new buildings have been erected by the college and the Y. M. C. A. building has been completed. These buildings have been so constructed and placed as to carry out, as far as possible, the general plan adopted more than a year ago. The new buildings have been occupied since February and the additional accommodations are much appreciated. Noticeable improvements have been made in the appearance of the campus by the removal of a number of more or less unsightly frame buildings, the windmill, and water tank. A new water supply system has been installed that will furnish abundance of water for all the needs of the college buildings and for irrigation on the level of the campus. The reservoir is placed about fifty feet above the highest building, thus giving abundant pressure in case of fire. Several hundred trees have been planted and other shrubbery and plants are being put out to beautify the grounds.

Hadley Hall—This building forms the central figure in the general plan referred to above, standing as it does in the center of the campus. The first floor contains the offices of the president and registrar as well as an audience room that will seat more than five hundred persons. The second floor is occupied by the library which is referred to in detail in another place. In the semi-basement story are eight rooms used by the department of Household Economics, and a large supply and storage room. When complete, Hadley Hall will have wings on both sides of the part now constructed and will house departments now in other buildings.

Wilson Hall—This is a two story building with semi-basement containing in all fifteen rooms, besides lavatories, toilets, etc. There are offices and class rooms for the departments of Agronomy, Animal Husbandry, Horticulture, and Irrigation Engineering on the upper floors and the basement story contains the Dairy laboratory and class room and the laboratories and equipment for Agricultural Engineering. The office work of the Experiment Station in the above named departments is all carried on in this building.

Boys' Dormitory—This is a two story building having living and study room accomodations for about sixty boys. There is also a large social room for the use of all. Ample accomodations in the way of baths, lavatories, toilets, and closets are at the service of students rooming in this building. The rooms are nicely furnished and under the management of a representative of the college.

Y. M. C. A. Building—For the past year this building has been giving the service for which it was constructed. The upper floor accomodates eighteen young men with living and study rooms. On the first floor are an excellent social room, a large committee and Bible-class room, and the secretary's room. In the basement are bath-rooms, lavatories, barber shop, lunch room, and the editorial room of the college paper. Thanks to the generosity of the friends of the association, this building is nicely furnished in mission style and is in every way a credit to the institution. Rules as to conduct of those using the building are strict and rigidly enforced. All male students are encouraged to become members of the association and avail themselves of all the privileges offered. The annual membership fee is small and the conveniences offered to members are many.

The Old Main Building—This is the first structure erected upon the college campus; a two story brick building with semi-basement story of rough stone surrounded with an area. It contains thirteen rooms all of which are furnished and in constant use as class rooms. The preparatory department occupies the second floor and the other rooms are used by the departments of commerce, mathematics, English, language, and military science.

Science Hall. This is a large two story building situated north of the main building. It contains eleven large class-rooms and laboratories besides five smaller ones used as offices and store rooms. The lower floor is occupied by the departments of Chemistry and Soil Physics, while the upper floor furnishes quarters for the departments of Physics and Biology. All the class work of these departments and the Experiment

Station work in chemistry, botany, and soil physics is carried on here.

Engineering Buildings. Two buildings are occupied by this department. They contain, besides two large recitation rooms and hall, a large wood working shop, an equally large machine shop for metal work, a blacksmith shop, a foundry room, and a 40 horse-power steam plant. The buildings contain a large amount of valuable machinery and apparatus for all kinds of mechanical and electrical engineering work.

McFie Hall. On the College farm about one fourth of a mile west of the old main building is McFie Hall, the home of the young women. It contains a large dining hall, a large parlor, a smaller reception room, a music room, a matron's room, a kitchen, etc., besides bath-rooms and twenty-five well lighted and ventilated sleeping rooms, all nicely furnished. About fifty people can be accommodated in the building.

Other Buildings. An adobe farm building which houses the farm foreman is located near the center of the farm. The greenhouse; a large adobe corral having sheds for stock, feed, implements; the pens and runs for sheep, swine, cattle, and chickens are all close around the farm building. Windmills and tanks supply the necessary water for stock, while a gasolene engine supplies power for feed cutting and grinding. A 12-inch well, centrifugal pump, and a steam plant furnish water for irrigation at the rate of 1,000 gallons per minute when it is necessary.

Equipment of Departments. All the departments are well supplied with apparatus, material, books, and furniture for handling classes in their subjects. The institution pays fire insurance on a valuation of $90,327 invested in property of this kind. The details of the special equipment of each department may be found under the separate statements concerning the work of these departments further on in this catalog.

THE LIBRARY

The College library comprises the general library and fifteen departmental libraries amounting to 12,015 bound volumes, and about 5,000 pamphlets.

The general library now occupies the second floor of Hadley Hall and is equipped with reference room, reading room, stack room, workroom, and office. It contains a well balanced reference collection of 1,500 volumes, a good collection of general literature, the standard works in the other classes, the publications of the U. S. Department of Agriculture and the various state experiment stations, and a depository library of the U. S. documents. A recently acquired set of indexes to these documents makes available a great deal of valuable reference material contained in them.

During the past year an effort has been made to complete the files of the publications of the U. S. Department of Agriture and the state experiment stations. The department and the various state stations have been generous in gifts and exchanges, so that in many series the file has been completed to date. More than half of these have been bound and the others will be bound during the coming year. Cards indexing these publications are being filed in the library catalogs as rapidly as possible. The public documents have been arranged and partially cataloged, and the cataloging of the departmental libraries has been practically completed.

The library is continually increased with reference to the needs of the various departments, and with the idea of the development of a strong reference library. Particular attention is given to collecting works on New Mexico and the southwest.

The departmental libraries are located in the offices of the different departments and are under the direct supervision of the heads of the departments. They contain working collections of the books in constant use in the departments, and number 3514 volumes. These books are all entered in the catalog of the general library.

Both general and departmental libraries are classified by the Dewey Decimal Classification, and a card catalog indexing them by author, title, and subject, is kept in the general library for public reference.

Personal assistance in all reference work is gladly given by the librarian and assistants.

Statistics

Departmental Libraries	1908	1909
Agriculture	250	263
Biology	855	889
Chemistry	438	458
Commercial	111	114
Economics	2	5
Engineering	541	560
English	81	84
Horticulture	122	125
Household Economics	97	111
Irrigation	11	19
Mathematics	216	222
Military	109	109
Preparatory	205	205
Soils	106	117
Spanish	232	233
Total in departments	3376	3514
General library	5367	8501
Total	8732	12015

Accessions by purchase	275
" binding	327
" transfer of text books	72
" gifts	422
" miscellaneous documents on hand	2186
Total accessions during year	3282

In addition to many foreign annuals and serials, the library receives regularly 202 magazines, and 34 newspapers. The following are placed on file in the reading room:

MAGAZINES

*Agricultural Epitomist
American Blacksmith
*American Cultivator
American Florist
American Machinist
*American Poultry Journal
*American Thresherman
Army & Navy Register
*Agricultural Advertising
A. L. A. Booklist
American Chemical Journal
American Educational Review
American Journal of Sociology
American Naturalist
*American Sugar Industry
Analyst
*Association Monthly
*Association Men
Atlantic Monthly
Blanco y Negro
Bookman
Boston Cooking School Magazine
*Breeder's Gazette
Book-keeper
Book Review Digest
Botanical Gazette
Bulletin of Bibliography
Bulletin N. Y. Botanical Garden
*Bulletin of Bibliography
Bulletin Torrey Botanical Club
Business World
*California Cultivator
Catholic World
Century
Chemical News
Commercial Cases
Concrete Age
Conservation
Country Life
Cumulative Book Index
Cassiers
*Cattle Specialist
Chemical Abstracts
*Coleman's Rural World
Concrete Engineer
Cosmopolitan
Craftsman
Current Literature
Delineator
Dial
*El Agricultor Mexicano
*Digit
Educational Review
Electric Age
Elementary School Teacher
Engineering Contracting
Electric Journal
Electrical World
Elite Styles
Engineering Magazine
Engineering News
Epicure
España Moderna
Etude
Everybody's
*Farm Journal
*Farm Poultry
*Farm & Fireside
*Farm & Home
*Farm & Ranch
*Farm & Stock
*Farmer's Call
*Farmer's Guide
*Farmer's Review
*Farmer's Voice
Fern Bulletin
Field & Farm
Fruit Grower
Fruitman & Gardener
*Garden Magazine
Gardening
*Gas Review
*Gleanings in Bee Culture
Good Housekeeping
Harper's Bazar
Harper's Monthly
Harper's Weekly
Hoard's Dairyman
*Holstein Friesian Register
House Beautiful
*Illuminated World Life
Implement Age
*Independent
India Rubber World
*Indiana Farmer
International Steam Engineer
International Studio
Irrigation Age
Journal Fuer Landwirtschaft
Journal of Accountancy
Journal d'Agriculture Pratique
Journal of American Chemical Society
Journal of American History

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*Gifts.

Journal of Chemical Society (London)
Journal of Education
Journal of Biological Chemistry
Journal of Industrial & Engineering Chemistry
Journal of Mycology
Journal of Philosophy, Psychologys, and Scientific Methods
Journal of Political Economy
Journal of Society of Chemical Industry
Journal of the U. S. Cavalry Association
*Kansas Farmer
*Kimball's Dairy Farmer
Knowledge
Ladies Home Journal
*Law Register
Library Journal
Life
Literary Digest
Living Age
*Louisiana Planter
McClure's
Machinen Zeitung
Manual Training Magazine
*Mark Lane Express
*Market Grower's Journal
Masters in Art
Mathematical Gazette
Midland Schools
*Missouri Farmer
*Modern Farming
Modern Priscilla
Muhlenbergia
Musical Courier
*Musician
Mycologia
Mycological Bulletin
*National Farmer
N. M. Journal of Education
North American Review
*Ohio Farmer
*Orange Judd Farmer
*Oregon Agriculturist
Outlook
Out West
*Pacific Dairy Review
*Pathfinder
Pedagogical Seminary
*Pernin Stenographer
Phonographic Magazine
Phonographic World
Photo Miniature
Plant World
Political Science Quarterly
Popular Astronomy
Popular Educator
Popular Science Monthly
*Poultry Digest
Power
*Practical Engineer
Prairie Farmer
Publisher's Weekly
Quarterly Journal of Economics
Reader's Guide to Periodical Literature
*Reliable Poultry Journal
Review of Reviews
*Revista Illustrada
Rhodora
*Rocky Mountain Resources
*Rural Life & Farm Stock Journal
Rural New Yorker
Saturday Evening Post
School Review
School Science & Mathematics
Science
Scientific American
Scientific American Supplement
Scribner's Magazine
*Sheep Breeder and Wool-Grower
*Southern Planter
*Southwestern Farmer
*Southwestern Trail
Students' Journal
Success
*Successful Farming
*Successful Poultry Journal
System
*Swastika
Teacher's World
*Thresherman's Review
Torreya
*Town & Country Journal
Trained Nurse
Typewriter & Phonographic World
*Universal Engineer
*Weekly Optic & Stock Grower
*Western Poultry Journal
Western Teacher
Woodcraft
Woodworker & Art Metal Worker
World's Chronicle
World's Work
Youth's Companion

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*Gifts.

NEWSPAPERS

*Albuquerque Evening Citizen
*Albuquerque Morning Journal
*Carlsbad Argus
*Chicago Drover's Journal
Chicago Daily Tribune
*Cloudcroft Silver Lining
*Colfax County Stockman
*El Labrador
*El Nuevo Mexicano
*El Paso Evening News
*El Tiempo
*Farmington Times-Hustler
*Homesteader
*La Voz del Pueblo
*Las Cruces Citizen
*Las Vegas Optic
*Lewiston Weekly Teller
*Nara Visa New Mexican
*Nara Visa Register
*New Mexican Review
New York Times
*Otero County Advertiser
*Outlook
*The Plains News
*Quay County Times
*Roswell Register Tribune
*San Juan County Democrat
*San Juan County Index
*Santa Fe New Mexican
*Sunnyside Republican
*Tolar Tribune
*Tucumcari News
*Tucumcari Sun
*Tularosa Valley Tribune
*Union County Herald
*Willard Record

PUBLICATIONS

The College publishes a quarterly bulletin known as the College Record. One number of this publication is the annual catalog, while the other three are illustrated pamphlets making announcements and telling the latest news of the institution.

The Experiment Station publishes annually at least four bulletins of economic value to the people of the Territory. These are mostly of an agricultural or horticultural nature, but not necessarily always so. Almost every week press bulletins containing timely information are sent to all the papers published in the Territory.

The students of the College publish a weekly newspaper dealing with all the various activities of the institution. This paper, called the Roundup, is referred to more at length in another place.

FELLOWSHIPS

The board of regents determined in 1900 to establish one or more fellowships, of the annual value of $300, open to graduates of the college, and in default of competent graduates who have specialized in the particular line of work required of the fellow, to graduates of other colleges. These fellowships will

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*Gifts.

be tenable for one or two years, but not for a longer period, and will be awarded to promising graduates who desire to pursue their studies in one or more lines beyond the undergraduate curriculum, and who are willing and able to devote half of their time to assisting in the work of the departments of the college. The appointment will be made upon the joint recommendation of the head of the department in which the fellow is to serve and of the president of the college. A fellow will not be permitted to carry more than two full courses of study, without the express permission of the head of his department and the president of the college.

FEES AND DEPOSITS

Entrance Fee. Each year all students who are citizens of New Mexico, are charged a fee of five dollars ($5.00); students from other states or territories in the United States are charged a fee of seven and one-half dollars ($7.50) per semester. Students who are not citizens of the United States are charged a tuition fee of twenty-five dollars ($25.00) per semester or fifty dollars ($50.00) per year.

Late Registration. A fee of one dollar ($1.00) extra will be charged all students who matriculate at any other time than upon the days announced as registration days.

Special Students must pay a fee of five dollars ($5.00) a year in addition to the fees paid by regular students.

Library Deposit. All students are required, each year, to deposit two and one-half dollars ($2.50) with the registrar as a guarantee that the proper treatment will be given to college books and other property lent to them. At the close of the year or whenever the student withdraws from the college, his deposit, less charges for damages to or loss of college property, is returned to him. Students who are notoriously careless with college property may be required to increase their deposits.

Chemistry Deposits. Students in all chemistry, mineralogy, and assaying courses must have on deposit with the registrar at the beginning of each term, the sum of five dollars ($5.00) to cover breakage of apparatus used in this work. Students in furnace assaying must, in like manner, have on deposit ten dollars ($10.00) to cover cost of crucibles, scorifiers, and other apparatus used up or broken. At the end of the year or upon withdrawal, these deposits less charges for breakage, etc., will be returned.

Chemistry Fee. At the beginning of each semester each student taking furnace assaying will be charged a fee of seven and one half dollars ($7.50) to cover cost of gasolene and fluxes used.

Mechanical Engineering Deposits. Students taking any practice work in the Engineering Department will be required to deposit with the Registrar, at the beginning of each year, five dollars ($5.00) to cover breakage or damage, and must make additional deposits at any time to meet similar expenses in excess of this amount. These deposits, less charges for breakage or damage, will be returned at the end of the year or upon withdrawal.

Military Fee. Each student who is registered for military drill is required to deposit with the registrar at the time of registration the price of the adopted uniforms, $22.50. This covers the cost of the two uniforms which each cadet is required to have. One of these is the cadet gray uniform, including trousers, tunic, cap, and gloves; the other is a khaki uniform consisting of olive drab shirt, cap, leggings, and khaki breeches. These uniforms are made to individual measures and are of the best materials. They are furnished to the College at a very low wholesale rate and and supplied to the student at cost. The purchase of the uniforms is a genuine economy, since they are the best and cheapest school suits that can be obtained.

Music. Instruction in music is charged for by the lesson.

Horse-stall Rent. Twenty-five cents (25c) per semester is charged each student or teacher using a horse-stall. This fee is used to keep the sheds clean.

STATIONERY

As the college is nearly two miles distant from any store dealing in books and stationery, it has been found necessary for the accommodation of students, to carry at the college a small line of articles, such as pencils, pens, etc., which are sold to students, for cash only, at a price which covers only the expense of handling, without profit.

BOARDING

The boarding accommodations for all classes of students are becoming quite varied and ample. The college has attracted to its immediate vicinity private families, many of whom accommodate some students with board. The price for board, room, light, etc., in families, varies from $18 to $25 per month. Not far from the college campus are cottages for rent. These are usually occupied by families who have moved in and taken temporary residence for the purpose of educating their children. This is a very satisfactory solution of the boarding problem. McFie Hall has boarding accommodations for about one hundred persons, or about fifty more than the number who room in the building. A large number of the young men take their meals there.

McFie Hall

McFie Hall, situated on the college farm, will accommodate about fifty students. The price of board per calendar month, with room, light, and heat, is $20.00 when two young women occupy a room; payable in advance on the first of each month. Young women who desire to occupy a room alone will be charged $25.00 per month. The rooms are comfortably funished, but each student must provide comforts, blankets, sheets, pillow-slips, towels, napkins, napkinring, and two laundry bags. The student's name must be plainly marked on all pieces. A spoon and glass should be brought for use in the room.

The students are under the general supervision of the faculty, and in charge of the Dean of Women who will supply further particulars.

The Boys' Dormitory

On the college campus near the Science Hall is the Boys' Dormitory which will accommodate about sixty students. The prices for rooms in this building are the same as those mentioned for young women and the young men are also expected to furnish their bedding (except mattress and pillows). The price named covers the cost of light and heat and the washing of bed linen. The dormitory is in charge of a college representative and study hour periods are enforced. There is no dining hall in connection with the building, but boys who room in this dormitory can secure board at McFie Hall.

Estimate of Necessary Expenses

Various college incidentals	$ 10.00	$ 10.00
Nine month's board and lodging at $18 to $25.	162.00 to	225.00
Laundry, per month at $1.00	9.00	9.00
Books and Stationery	10.00	20.00
	$191.00 to	$264.00
Male students who are required to take military tactics, for uniforms		$ 22.50

SELF-SUPPORT

There is considerable labor on the farm, in the shops, and in the laboratories, that can be performed by students, and the policy is to give it to students rather than to others. Some students have been able to earn enough money during the year to pay their expenses; but those doing so have had constant employment in some subordinate position, The college cannot undertake to furnish work for all students who wish it, or need it, in anything like sufficient amount to pay expenses; and even if it could the student's time is needed chiefly for study, recitation, and practice. Still many worthy and industrious students pay a considerable part of their expense by labor. Preference is given to those who are most worthy and meritorious, and who are regular and punctual in attendance, and correct in deportment. This labor is paid for at the rate of from 12½ to 20 cents per hour; but the faculty reserves the right to limit the amount of work any student may do.

RELIGION

All students will be trained in the principles of morality, but no sectarian teaching will be tolerated in the college. Entire freedom of choice is given the student in selecting the church he will attend. Services are held at the following churches every Sunday: Catholic, Presbyterian, Methodist, Baptist, and Episcopalian. At the Presbyterian church are held meetings of the Young People's Society of Christian Endeavor. With the Methodist church is connected the Epworth League. Recently a branch of the International College Y. M. C. A., has been established at the college and regular meetings are held on Sunday.

DISCIPLINE AND GOVERNMENT

It should be impressed upon the youth of New Mexico that by the creation of the College of Agriculture & Mechanic Arts there has been provided for them the fullest and best opportunities to secure a practical education. Students who enjoy the advantages here offered should realize that to forfeit these privileges on account of their misuse or abuse is a matter of the most serious concern to them. No elaborate code for the conduct of the students is prescribed. The college rules are mainly for the purpose of facilitating the college business. As regards behavior, students are expected to conduct themselves as ladies and gentlemen. If after a fair trial, the influence of any student is found to be detrimental to scholarship, morals, or good order, dismissal will follow.

For some time past the students have been encouraged to take an active part in the administration of the college. The student body is organized, and there is a student Conference Committee consisting of representatives from the student congress and from the faculty. This committee discusses informally all matters of student concern, whether proposed for discussion by the faculty or by the students, and recommends to the faculty and to the student congress such lines of action as seem to it to be wise.

REQUIREMENTS FOR ADMISSION

College Courses. For entrance to the Freshman class in any of the college courses (Agriculture, Engineering, Household Economics, Commerce, General Scientific) a student must be a graduate of one of the following:

(a) A four year course in an accepted high school,

(b) The college preparatory course in this institution, or

(c) The four-year industrial course corresponding to the desired college course.

A high school graduate will be required to present credits for work amounting to at least 15 units. (A unit is the equivalent of one hour of recitation or two hours of laboratory work daily for thirty six weeks.) A student who can present 15 units of high school work, exclusive of physical culture and music, will be admitted to the Freshman class even if he is not a graduate of a high school.

It is recommended that the credits offered for entrance conform as nearly as possible to the course of study of the College Preparatory Course (page 46) but substitutions will be permitted. A student, regardless of the number of units offered for entrance, will be conditioned in any preparatory subject which he has not had that must necessarily precede a required subject in his college course.

While the secondary vocational courses are designed especially to meet the needs of students who do not expect to take a college course, they will nevertheless give excellent preparation for the corresponding technical courses in college. For example, a graduate of the industrial course in Agriculture can enter the college course in Agriculture; a graduate of the industrial course in Mechanics can enter any of the college courses in Engineering; a graduate of the industrial business course can enter the college course in

Commerce; a graduate of the industrial course in Domestic Science can enter the college course in Household Economics. In each of the technical college courses the Freshman year is divided into two sections with separate courses of study: A for high school graduates, B for graduates of secondary vocational courses.

Industrial Courses. Any student who has completed the eighth grade in the common schools may be admitted to the first year of any of the industrial courses. Students who have had part of a high school course will be admitted to the college preparatory course and will receive credit for the work which they have done. Those who desire to take one of the industrial courses should arrange, if possible, to enter at the beginning of the course and take the entire four years work here.

Stenography. The student should, if possible, complete a high school course or its equivalent before beginning the study of stenography. It is especially important that there be sound preparation in English. No student will be accepted as a candidate for the certificate in this course who cannot present evidence of being qualified to take Freshman English.

Credentials. The student who expects to matriculate in this institution and wishes to receive credit for work done in some other school is advised to send his credentials to our registrar during the summer vacation, together with a definite statement of what course he wishes to enter. Thus the proper faculty committee will be able to examine carefully into the work already done by each student and the work of classification may be done more accurately and expeditiously. If for any reason such credentials cannot be sent in advance of the student's arrival, he must be sure to bring them; otherwise he will have to take the entrance examinations.

Time to Matriculate. *Particular attention is called to the fact that it is very much to the advantage of the student to be on time for matriculation. By so doing he avoids all loss of recitations*

HADLEY HALL

at the beginning of his course as well as the payment of the fee referred to on page ....

Degrees

The degree of *Bachelor of Science (B. S.)* is conferred upon students who satisfactorily complete the work prescribed in any of the collegiate courses of study, but in order to receive the B. S. degree students are required to spend at least one year immediately before graduation in this institution.

The degree of *Master of Science (M. S.)* is conferred upon students of this institution who, after taking the degree of B. S., pursue for at least one year in residence, or for two years as non-resident students, a course of study approved by the faculty, pass an examination upon the same, and present a satisfactory thesis. Students of other institutions of similar character and equal rank, holding the bachelor's degree and desiring to take the M. S. degree from this institution, are subject to the same requirements as above, except that they must spend the year next preceding the granting of the degree in resident study.

Regarding graduate courses of study, the following rules must be observed:

1. The course shall consist of work equivalent to twenty lecture hours per week, and shall be distributed between one major and two minors.

2. The major, covering ten hours, shall be advanced work not offered to undergraduates, in line with the candidate's principal work leading to the B. S. degree, and at least half of it shall be devoted to research whose results shall be embodied in a thesis.

3. The minors, covering ten hours, may be chosen from lines distinct from that of the major, and may include work offered to undergraduates of the Junior and Senior years.

4. The candidate must pass a satisfactory examination upon his work and present his thesis for final approval in typewritten form ten days before commencement.

In bachelor's diplomas the course completed by the student may, at his option, be indicated parenthetically.

In masters' diplomas, at the discretion of the faculty, the degrees of M. S. A. (Master of Scientific Agriculture) and M. E. (Mechanical Engineer) may be substituted for M. S. in the case of students of Agriculture and Mechanical Engineering.

The Elective System

By consulting the courses of study offered by this institution (pp. 37 to 42) it may be seen that there are seven collegiate courses outlined, six of which are of a more or less specialized character. Each of these latter is designed to fit the student for some special line of work, which he has decided to follow. Besides their strictly technical subjects, they contain as many general educational and cultural subjects, considered of most value to technical students, as it was possible to introduce in the prescribed time. The arrangement allows very little selection of work upon the part of the student except that made when entering his particular course. Engineers of all kinds have little or no choice of work. Agricultural men may elect a second year of language and a small number of other cultural subjects or more technical work, if they so desire. The course in Household Economics allows a certain amount of election which may be turned either to cultural work or to further technical work in that department- The course in Commerce also has time for election.

The General Science course, however, is designed to include, as required work, those subjects which are necessary in any general course, and at the same time allow the student to select a large portion of his work. The facilities offered and the time allowed are so arranged that a student may specialize in language, literature, chemistry, physics, or biology, or may take technical training in agriculture, horticulture, engineering, or household economics. With this arrangement a student, by entering the General Science course, may take any special course of his own choosing, which the institution is able to furnish.

Special Students. Students of mature age, or those who have clearly defined special needs which are not served to the best advantage by any of the regular courses, may be admitted as special students. A student cannot become a special by failing in any part of his college work, or merely for the purpose of avoiding some college requirement. Before a student will be classified as a special student, he must:

1. Present to the president a written statement of his reason for wishing to take a special course. Such statement must show a serious purpose and desire to accomplish some definite end which cannot so well be attained through a regular course. It should include a statement of the line of work desired and, in the case of a new student, should be accompanied by a statement of the work already done in other institutions.
2. If a minor, present the written consent of the parent or guardian.
3. Obtain the approval of the president.
4. Pay a fee of five dollars a year in addition to the fees paid by regular students.

A student who has been accepted as a special student may elect any courses offered either in the college, the preparatory department, or the secondary technical courses, subject to the approval of the head of the department who shall be the judge of his preparation for the work desired.

Attention is called to the fact that the institution offers a large variety of courses, both secondary and collegiate, so that, in all but very exceptional cases, the student will find a regular course to meet his needs. It is particularly urged that, so far as possible, all students enroll in regular courses. At the same time, it should be understood that the entire resources of the institution are open to the serious student with a definite purpose which cannot be served properly by a regular course.

Irregular Students. Students who, at the time of their entrance, are deficient in certain subjects or have credits in excess of those required, and students who fail in one or more subjects may be temporarily irregular. They will be enrolled with the class to which they most nearly belong and will be held to the requirements of the course and class in which they are enrolled. The fact that a student is irregular will not be considered as a reason for enrolling him as a special and releasing him from the requirements of the regular courses.

A COLLEGE COURSE IN HOUSEHOLD ECONOMICS

FRESHMAN

First Semester		Second Semester	
Chemistry	3+4P*	Chemistry	3+4P
English	5	English	5
Modern Language	5	Modern Language	5
Domestic Art	10P	Domestic Art	10P

SOPHOMORE

Organic Chemistry	3+4P	Physiology	5
Zoology	2+6P	Botany	2+6P
Modern Language	5	Modern Language	5
Dressmaking and Tailoring	6P	Foods	2+6P
Color and Design	4P		

JUNIOR

Economics	5	Economics	5
Modern European History	3	Modern European History	3
Bacteriology	2	Debating	2
Debating	2	Dietetics	2+6P
Economic Uses of Foods	2+2P	Elective	5
Elective	5		

SENIOR

Geology	5	Millinery	2P
Psychology	5	Textiles	2+2P
Home Nursing	2	Household Art	2P
Dietary Studies	2+2P	Home Architecture and Sanitation (9 wks.)	5
Elective	5	Household Manage. (9 wks.)	
		Thesis	5
		Elective	5

* The figures tell the number of recitations per week. P indicates that the work is practice or laboratory work.

NOTICE—Military Tactics is required of all male students of the institution except Juniors, Seniors, and Graduate Students, three hours of drill and one period of theoretical work per week throughout the year. All young women, except Juniors, Seniors, and Graduates, are required to take Physical Culture three days each week throughout the year.

A COLLEGE COURSE IN AGRICULTURE

FRESHMAN YEAR

First Semester		Second Semester	
Chemistry	3+4P	Chemistry	3+4P
Agricultural Botany	2+6P	Agricultural Botany	2+6P
Field Machinery	3	Elementary Agronomy	2
Score-card Practice	4P	Care of Animals and Veterinary Elements	2
Fruit Growing	1+2P	Stock Feeding and Breeding	3
Entomology	2P	Plant Propagation and Vegetable Gardening	1+4P
Seeds	2		

SOPHOMORE YEAR

Agricultural Chemistry	2+6P	Agricultural Chemistry	10P
Surveying	1+4P	Physiology	5
Landscape Gardening	1+2P	Milk and its Products	1+4P
Forestry	2	Livestock Judging	2
Grain Judging	1+4P	Farm Machinery	1+4P
Care and Management of Livestock	3	Olericulture	2
Farm Motors	1+2P		

JUNIOR YEAR

Economics	5	Economics	5
Debating	2	Debating	2
Soil Physics	6P	Field Crops	4
Meteorology	2	Farm Architecture	4P
Pomology	2	Pomology	2+2P
Livestock Judging	3	Stock Feeding	3
Farm Management	3	Tillage	1

SENIOR YEAR

Geology	5	Irrigation Practice	1+4P
Mineralogy	10P	Animal Breeding	2
Advanced Entomology	2	Thesis	5
Elective	8	Elctive	10

Electives

Agronomy

Plant Breeding	5	Special Crops	3+4P
Field Experiments	6P	Comparative Agriculture	2
		Cement Construction	1+4P
		Research in Agricultural Engineering	4P

Horticulture

Plant Breeding	5	Theory of Pruning	2
Storage and Preservation of Fruits	2P	Tropical Fruits	1
Viticulture	2	Literature of Horticulture	2P
		Phenological Field Work	2P
		Codling Moth Investigations	2

Animal Husbandry

Examination for Soundness, and Principles of Horseshoeing	3	Animal Anatomy	3
Herd Book and Pedigree	2	Obstetrics	2
Dairy Management and Butter Making	2+2P	Animal Diseases	3

A COLLEGE COURSE IN MECHANICAL ENGINEERING

FRESHMAN

First Semester		Second Semester	
Trigonometry	5	Higher Algebra	5
Chemistry	3+4P	Chemistry	3+4P
Carpentry	5P	Mechanical Drawing	10P
Mechanical Drawing	5P	Forging (9 wks.)	10P
Wood-turning and Pattern-Making	10P	Machine Shop (9 wks.)	10P

SOPHOMORE

Analytic Geom. & Calculus	5	Calculus	5
Physics	3+4P	Physics	3+4P
Modern Language	5	Modern Language	5
Mechanism	2	Drawing	4P
Plane Surveying	1+4P	Descriptive Geometry	3

JUNIOR

Elements of Mechanics	3	Applied Mechanics	5
Graphic Statics	4P	Steam Engines and Boilers	3
Debating	2	Machine Design	6P
Machine Shop (9 weeks)	10P	Machine Shop	10P
Foundry (9 weeks)	10P	Economics	5
Economics	5	Debating	2
Metallurgy	3		

SENIOR

Engineering Structures	2	Thermodynamics	2
Hydraulics	3	Materials of Construction	1+2P
Elements of Electrical Engineering	3	Engineering Power Plants	3
		Economics of Engineering	1
Applied Mechanics	3	Mech. Engin. Laboratory	2P
Machine Design	4P	Astronomy	3
Engineering Laboratory	2P	Seminar	1
Geology	5	Thesis	5
Seminar	1	Gas & Oil Engines	2

A COLLEGE COURSE IN ELECTRICAL ENGINEERING

FRESHMAN

First Semester		Second Semester	
Trigonometry	5	Higher Algebra	5
Chemistry	3+4P	Chemistry	3+4P
Carpentry	5P	Mechanical Drawing	10P
Mechanical Drawing	5P	Forging (9 wks,)	10P
Wood-turning and Pattern-making	10P	Machine Shop (9 wks.)	10P

SOPHOMORE

Analytic Geom. and Calculus	5	Calculus	5
Physics	3+4P	Physics	3+4P
Modern Language	5	Modern Language	5
Mechanism	2	Drawing	4P
Plane Surveying	1+4P	Descriptive Geometry	5

JUNIOR

Elements of Electrical Engineering	3	Applied Mechanics	5
Elements of Mechanics	3	Steam Engines and Boilers	3
Graphic Statics	4P	Economics	5
Machine Shop (9 wks.)	10P	Debating	2
Foundry (9 wks.)	10P	Machine Design	10P
Economics	5	Machine Shop	10P
Debating	2		

SENIOR

Dynamo-Electric Machinery	3	Thermodynamics	3
Hydraulics	3	Alternating Currents	2
Applied Mechanics	3	Materials of Construction	1+2P
Dynamo Design	4P	Engineering Power Plants	3
Engineering Structures	2	Economics of Engineering	1
Electrical Engineering Lab	2P	Electric Power Transmission	1
Seminar	1	Electrical Engineering Lab	2P
Geology	5	Seminar	1
		Astronomy	3
		Thesis	4

A COLLEGE COURSE IN CIVIL ENGINEERING

FRESHMAN

First Semester		Second Semester	
Trigonometry	5	Higher Algebra	5
Chemistry	3+4P	Chemistry	3+4P
Carpentry	5P	Mechanical Drawing	10P
Mechanical Drawing	5P	Forging (9 weeks)	10P
Wood-turning and Pattern-making	10P	Machine Shop (9 weeks)	10P

SOPHOMORE

Analytic Geom. & Calculus	5	Calculus	5
Physics	3+4P	Physics	3+4P
Modern Language	5	Modern Language	5
Mechanism	2	Drawing	4P
Plane Surveying	1+4P	Descriptive Geometry	3

JUNIOR

Advanced Land Surveying	2+2P	Topographical Surveying	1+8P
Railway Surveying	3+4P	Applied Mechanics	5
Elements of Mechanics	3	Railway Construction	2+2P
Graphic Statics	4P	Economics	5
Debating	2	Debating	2
Economics	5		

SENIOR

Engineering Structures	2	Bridge Design	4P
Engineering Laboratory	2P	Materials of Construction	1+2P
Applied Mechanics	3	Irrigation Engineering	3
Elements of Electric Engineering	3	Irrigation Field Work	4P
Hydraulics	3	Seminar	1
Seminar	1	Astronomy	3
Geology	5	Elective	2
Elective	2	Thesis	5

A COLLEGE COURSE IN GENERAL SCIENCE

FRESHMAN

First Semester		Second Semester	
English	5	English	5
Chemistry	3+4P	Chemistry	3+4P
Modern Language	5	Modern Language	5
Trigonometry	5	Higher Algebra	5

SOPHOMORE

Organic Chemistry	3+4P	Physiology	5
Zoology	2+6P	Botany	2+6P
Modern Language	5	Modern Language	5
Elective	5	Elective	5

JUNIOR

Physics	3+4P	Physics	3+4P
Economics	5	Economics	5
Debating	2	Debating	2
Modern European History	3	Modern European History	3
Elective	5	Elective	5

SENIOR

Geology	5	Geology	5
Mineralogy	5	Astronomy	3
Psychology	5	Thesis	5
Elective	5	Elective	7

A COLLEGE COURSE IN COMMERCE

FRESHMAN YEAR

First Semester		Second Semester	
English	5	English	5
Chemistry	3+4P	Chemistry	3+4P
Bookkeeping	5	Bookkeeping	5
Commercial Geography	5	Commercial Arithmetic	5

SOPHOMORE YEAR

Accountancy	5	Accountancy	5
Modern Language	5	Modern Language	5
Zoology	2+6P	Botany	2+6P
Elective	5	Elective	5

JUNIOR YEAR

Science of Accounts	5	Science of Accounts	5
Economics	5	Economics	5
Modern European History	3	Modern European History	3
Debating	2	Debating	2
Elective	5	Elective	5

SENIOR YEAR

Commercial Law	5	International Law	5
History of Commerce	5	Money, Credit, Banking	5
Psychology	5	Thesis	5
Elective	5	Elective	5

Only the first year of the College Course in Commerce will be given during 1909-10.

AN INDUSTRIAL COURSE IN AGRICULTURE

FIRST YEAR

First Semester		Second Semester	
English	5	English	5
Algebra	5	Algebra	5
Physiography	4+2P	Physiography	4+2P
Elementary Agronomy (9 weeks)	5	Plant Propagation (9 weeks)	5
Stock Judging (9 weeks)	5	Stock Judging (9 weeks)	5
Music	2P	Music	2P

SECOND YEAR

English	5	English	5
Plane Geometry	5	Plane Geometry	5
Zoology	3+4P	Botany	3+4P
Carpentry (9 weeks)	5	Forging (9 weeks)	5
Farm Dairying (9 weeks)	5	Vegetable Gardening and Forcing (9 weeks)	5

THIRD YEAR

English	5	English	5
General History	5	General History	5
Elementary Chemistry	3+4P	Care of Animals (9 weeks)	5
Entomology (9 weeks)	5	Field Machinery "	5
Advanced Arithmetic (9 weeks)	5	Stock Feeding "	5
		Seeds "	5

FOURTH YEAR

Physics	3+4P	Physics	3+4P
Elementary Economics	5	Elementary Economics	5
Farm Building and Home Improvement (9 weeks)	5	Fruit Growing (9 weeks)	5
Fruit Growing (9 weeks)	5	Agricultural Economics (9 weeks)	5
Plant and Animal Breeding (9 wks.)	5	Veterinary Elements "	5
Plant Diseases (9 weeks)	5	Elementary Soil Physics "	5

AN INDUSTRIAL COURSE IN MECHANICS

FIRST YEAR

First Semester		Second Semester	
English	5	English	5
Algebra	5	Algebra	5
Physiography	4+2P	Physiography	4+2P
Carpentry	5P	Carpentry	5P
Drawing	5P	Drawing	5P
Music	2P	Music	2P

SECOND YEAR

English	5	English	5
Plane Geometry	5	Plane Geometry	5
Zoology	3+4P	Botany	3+4P
Woodturning (9 weeks)	10P	Drawing (9 weeks)	10P
Pattern-making (9 weeks)	10P	Forging (9 weeks)	10P

THIRD YEAR

English	5	English	5
Adv. Arith. (9 weeks)	5	Advanced Algebra	5
Solid Geom. (9 weeks)	5	General History	5
General History	5	Machine Shop	5
Building Construction (9 weeks)	5		
Drawing (9 weeks)	10P		

FOURTH YEAR

Physics	3+4P	Physics	3+4P
Elementary Economics	5	Elementary Economics	5
Elements of Elect. Engineering	5	Contracting & Estimating (9 wks.)	5
Engineer. Laboratory (9 weeks)	5	Concrete (9 weeks)	10P
Engine & Dynamo Pract. (9 wks.)	5	Machine Shop	10P

AN INDUSTRIAL COURSE IN DOMESTIC SCIENCE

FIRST YEAR

First Semester		Second Semester	
English	5	English	5
Algebra	5	Algebra	5
Physiography	4+2P	Physiography	4+2P
Cooking	5P	Sewing	5P
Drawing	5P	Drawing	5P
Music	2P	Music	2P

SECOND YEAR

English	5	English	5
Plane Geometry	5	Plane Geometry	5
Zoology	3+4P	Botany	3+4P
Sewing	4P	Sewing	6P
Cooking	6P	Elem. Color & Design	4P

THIRD YEAR

English	5	English	5
General History	5	General History	5
Elementary Chemistry	3+4P	General Housekeeping	5
Manual Training	5P	Manual Training	5P
Adv. Arithmetic (9 weeks)	5	Gardening (9 weeks)	5

FOURTH YEAR

Physics	3+4P	Physics	3+4P
Elementary Economics	5	Elementary Economics	5
Advanced U. S. History	5	English	5
Advanced Cooking	5P	Advanced Cooking	5P
Advanced Sewing	5P	Advanced Sewing	5P

A COLLEGE PREPARATORY COURSE

FIRST YEAR

First Semester		Second Semester	
English	5	English	5
Algebra	5	Algebra	5
Physiography	4+2P	Physiography	4+2P
Manual Training	5P	Manual Training	5P
Drawing	5P	Drawing	5P
Music	2P	Music	2P

SECOND YEAR

English	5	English	5
Plane Geometry	5	Plane Geometry	5
Zoology	3+4P	Botany	3+4P
Latin	5	Latin	5

THIRD YEAR

English	5	English	5
Solid Geom. (9 weeks)	5	Advanced Algebra	5
Advanced Arithmetic (9 weeks)	5	General History	5
General History	5	Latin or Spanish	5
Latin or Spanish	5		

FOURTH YEAR

English	5	English	5
Physics	3+4P	Physics	3+4P
Advanced U. S. History	5	Civics	5
Latin or Spanish	5	Latin or Spanish	5

AN INDUSTRIAL COURSE IN BUSINESS

FIRST YEAR

First Semester		Second Semester	
Commercial Geography	5	Commercial Arithmetic	5
Algebra	5	Algebra	5
Physiography	4+2P	Physiography	4+2P
English	5	English	5
Music	2P	Music	2P
Penmanship	2P	Penmanship	2P

SECOND YEAR

Bookkeeping	5	Bookkeeping	5
Plane Geometry	5	Plane Geometry	5
English	5	English	5
Latin	5	Latin	5
Penmanship	2P	Penmanship	2P

THIRD YEAR

Bookkeeping	5	Bookkeeping	5
General History	5	General History	5
English	5	English	5
Spanish	5	Spanish	5
Spelling	2P	Spelling	2P

FOURTH YEAR

U. S. History	5	Commercial Law	5
Elementary Economics	5	Elementary Economics	5
English	5	English	5
Spanish	5	Spanish	5
Typewriting	5P	Typewriting	5P

Only the first two years of the Business Course will be given during 1909-10.

A COURSE IN ENGLISH STENOGRAPHY

First Semester		Second Semester	
Stenography	10	Stenography	10
Typewriting	5	Typewriting	2
English	5	English	5
Spelling	2	Spelling	5

A COURSE IN SPANISH STENOGRAPHY

First Semester		Second Semester	
Advanced Stenography	10	Spanish Stenography	10
Office Practice	2	Office Practice	5
Typewriting	5	Typewriting	2
Spanish	5	Spanish	5

ADVANCED ENGLISH STENOGRAPHY

First Semester		Second Semester	
Advanced Stenography	10	Advanced Stenography	10
Office Practice	2	Office Practice	2
Typewriting	5	Spanish or English	5
Spanish or English	5	Typewriting	5

DEPARTMENT OF AGRICULTURE

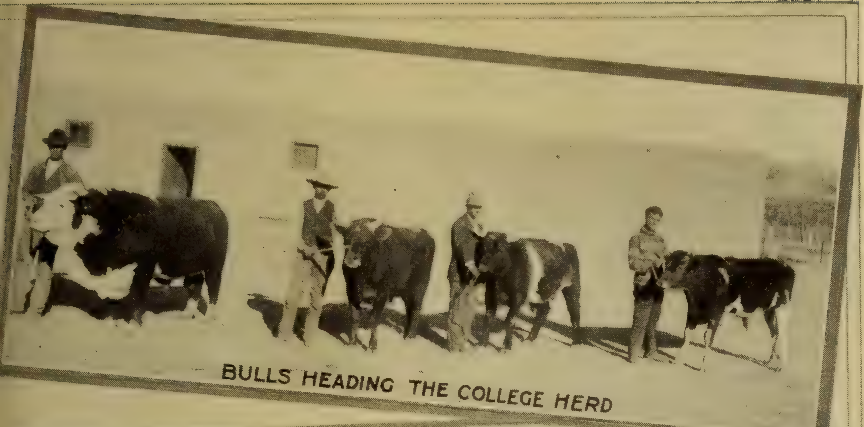
PROFESSOR FOSTER ASSOCIATE PROFESSOR ———

ASSISTANT PROFESSOR SIMPSON

The course in agriculture is designed to combine, in their proper proportions, that amount of theoretical study with laboratory and field training which will produce a well rounded, practical, resourceful man. To this end the course is strong in botany and chemistry, which form important aids to applied agriculture, and a certain number of other subjects of general educational value are included. To all this is added a large amount of practical work under competent instruction and with a modern equipment. A certain amount of choice is allowed in the selection of the studies of the last year. The instruction is given by text-books, lectures, laboratory practice, and field observation. This course fits young men for the various agricultural pursuits: farming, stock-raising, and dairying. It also prepares them for professional positions in agricultural colleges, as well as for scientific aids in the United States Department of Agriculture. The demand for trained men in these latter positions has been so great, that in recent years, almost all agricultural graduates have been called into college or experiment station work.

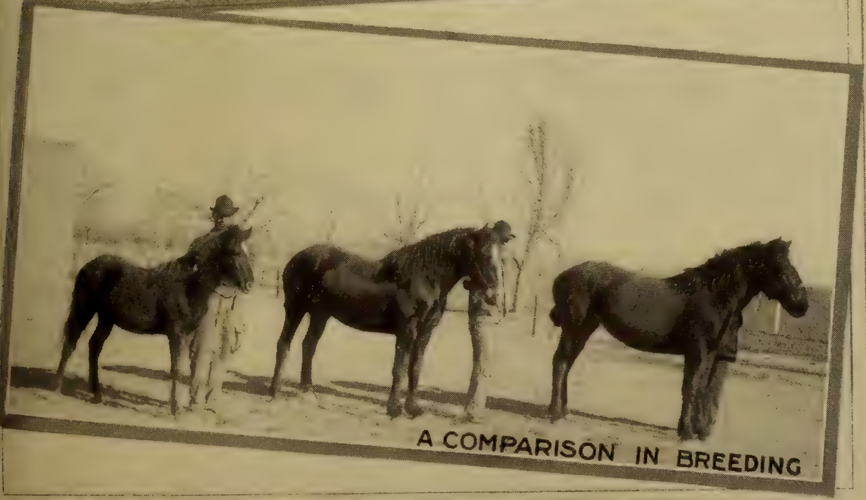
AGRONOMY

Is the science of the field and its crops. The object of the work is to acquaint the student with crop production;—the nature of the various crops, the conditions governing their successful and economic production, the improvement of soils, the preservation of fertility, and the application of economic business methods to farm pratice. The course combines both theory and practice. The different phases of crop production are studied in the class room and the practical



BULLS HEADING THE COLLEGE HERD

A PAIR OF SHROPSHIRES



A COMPARISON IN BREEDING

work aims to fix the principles learned and give them a practical application.

Elementary Agronomy. A. Introductory principles. The work is general and of a popular nature. Principles of Agriculture by Bailey is used as a text, supplemented by lectures. Associate Professor———.

Required of FirstYear Agricultural Industrial students, first semester, first 9 weeks, 5 hours.

Seeds. B. This course includes studies in the identification, adulteration, and germination of farm seeds. Preservation of seeds and methods of seeding are also studied together with weeds and weed seeds, their identification and methods of destruction, and fungus diseases, such as smut of oats and wheat. Associate Professor———.

Required of Third Year Agricultural Industrial students, second semester; last 9 weeks, 5 hours.

Agronomy. 1 and 2. The work covered in these courses is the same as that offerred in Agronomy A and B of the Agricultural Industrial Course. Associate Professor.———

Required of Agricultural Freshmen, Division A, first and second semesters, 2 hours.

Grain Judging. 3. This course includes judging of wheat, oats, barley, corn, etc., and a study of market grades of farm crops. It treats of 3 shrinkage of grain and care of stored crops to prevent injury and loss. Score card practice with cereals. Associate Professor———.

Required of Agricultural, Sophomore, first semester, 1 hour plus 4 hours practice.

Farm Management. 4. The work of this course consists of a study of some of the problems confronting a farmer and plans for overcoming the difficulties involved in the development and management of different classes of farms. It treats of the location and grouping of farm buildings; utilization of the different soils and exposures; economizing of time and labor in reaching all parts of the farm; the laying out of the farm that will best provide for rotation and maintenance of soil fertility; provision for the necessary live stock, which includes a proper division between tilled and untilled land, meadow, pasture, etc.; and the development of the landscape effects of the entire farm. It correlates the study of soil management, crop management, and business management of the farm, including farm accounts. Professor Foster.

Required of Agricultural Juniors, first semester, 3 hours.

Field Crops. 5. This course includes the study of the various crops of the farm. Selection, adaptation, uses storage, planting and cultivation, varieties and their improvement, the effect of different crops upon the fertility of the soil and upon succeeding crops; different systems of rotation and the effect upon the productiveness of the soil produced by various methods of soil management under New Mexico conditions of climate. Associate Professor————.

Required of Agricultural Juniors, second semester, 4 hours.

Tillage. 6. Lectures and recitations on cultivating the soil with special reference to the irrigation and dry farming practices adapted to the Southwest. The lectures include such topics as time, depth, and method of plowing, preparation of the seed bed, methods of seeding and planting, and methods of cultivation. Professor Tinsley.

Required of Agricultural Juniors, first four weeks of the second semester, 5 hours.

Special Crops. 7. A special study of farm crops. Discussion of rotation or succession of crops with special reference to systematic farming and economic distribution of labor, methods of culture, cost of production, and consumption of products. Professor Foster.

Elective for Agricultural Seniors, second semester, 3 hours plus 4 hours practice.

Field Experiments. 8. Special work by students conducted in the field. This work consists of testing the varieties of grain and other farm crops; methods of planting and seeding; culture and practice in treating oats and wheat for smut. Other practical experiments may be arranged for with the instructor. Associate Professor———.

Elective for Agricultural Seniors, first esmester and summer vacation, 6 hours practice.

Comparative Agriculture. 9. Reasons for the differences in the agriculture of different times, peoples, and countries; and why it is that the agriculture of a region or of a farm is a definite and individual problem; together with the need of harmonizing agricultural practices with natural conditions as well as with scientific truths. Soil, climate, race, custom, etc., are considered with respect to their influence on agricultural practices and the best methods of procedure under different conditions are discussed. Professor Foster.

Elective for Agricultural Seniors, second semester, 2 hours.

AGRICULTURAL ENGINEERING

Agricultural Engineering is the science which treats of mechanical laws as applied to the machinery, implements, and operations of the farm. It includes such subjects as farm machinery, farm motors, road construction, rural architecture, etc.

Field Machinery. *A.* The tools and machinery of the field as used in tillage, seeding, harvesting, etc. The history of the development, details of construction, functions, methods of operation, and the care of the various implements are studied. Special attention is given to plows, harrows, seeders, drills, corn and potato planters, cultivators, weeders, spraying machines, mowers, rakes, self-binders, potato diggers, wagons, buggies, etc. Class and laboratory practice, including setting up and testing machines, noting construction and elements necessary for successful work, Associate Professor———.

Required of Third Year Agricultural Industrial students, second semester, 9 weeks.

Agricultural Engineering. *1.* The same as A in Industrial Agricultural Course. Associate Professor———.

Required of Agricultural Freshmen Div. A, first semester, 3 hours.

Farm Motors. *2.* The course includes a thorough study of horse power, gas engines, hot air engines, traction engines, wind wills, feed cutters and grinders, and threshing machines,—their construction, operation, efficiency, durability and care. Class work is supplemented by practical work with the various motive powers in the laboratory. Professor Sage.

Required of Agricultural Sophomores, first semester, 1 hour plus 2 hours practice.

Farm Machinery. *3.* Expert work in farm machinery, chiefly with harvesting machinery, gasolene and traction engines. This course is designed for students preparing themselves for demonstrating these machines in the field. Associate Professor———.

Required of Agricultural Sophomores, second semester, 1 hour plus 4 hours.

Farm Architecture, *4.* Includes work in the designing of the various farm buildings, their arrangement, construction, lighting, heating, ventilation, drainage, etc. Cost and durability of the various building materials are carefully considered and suggestions given as to contracts and specifications. The cost, construction, efficiency, and durability of the different kinds of fences are considered, as well as that of roads and walks. Class work and practice in the designing and drafting of buildings. Associate Professor———.

Required of Agricultural Juniors, second semester, 4 hours practice.

Cement Construction. *5.* A study of the methods of construction and the various uses of cement on the farm. Associate Professor———.

Elective for Agricultural Seniors, 1 hour plus 4 hours practice.

Reseach in Agricultural Engineering. *6.* Includes special study and investigation along the various lines of agricultural engineering in which individual students are most interested, as sewerage, road construction, testing of various machines, etc. Requirements to be arranged with the instructor. Associate Professor———.

Elective, Senior year, second semester, 4 hours practice.

THE COLLEGE YOUNG MEN'S CHRISTIAN ASSOCIATION.

The accompanying cut shows some views of the Young Men's Christian Association building, which was completed at the beginning of the last college year. The building contains dormitory rooms on the second floor, a large reception room and two Bible class rooms on the first floor, and lunch counter, barber shop, baths, and Round-Up office in the basement.

The wood work and furniture throughout are mission style. During the past year the building has proven a very attractive and popular place for student meetings of all kinds. The total cost of the structure was over fifteen thousand dollars, all of which was raised by popular subscription through the efforts of the students and their friends.

At the close of the last school year the local Association had a membership of 130, over half of the male students in the college being enrolled. Ninety men were in its Bible classes throughout the year. These classes were established in every section of the community and were led by upper classmen and members of the faculty.

New students are especially invited to make the building their headquarters at the beginning of the year. The object of the Association is to take charge of the new student and make him feel at home. Its members will meet him at the train, look out for his baggage, and assist him in arranging for a rooming and boarding place. They will help him in registering for classes, and will present him with a booklet containing blank forms for the filling in of his schedule of recitations, as well as other useful general information about things around the college. The new student is urged to become a member of the Association and to engage in its work. Parents who wish their sons to join may include in their list of expenditures the $2 00 membership fee, which covers the college year.

The Association will be glad to answer by mail questions of all kinds from young men who are thinking of entering college in the fall. An effort will be made to assist earnest fellows who want to get employment as a means of paying part of their expenses.

Inquiries should be addressed to
Y. M. C. A., AGRICULTURAL COLLEGE, N. M.

ZOOTECHNY

Increased immigration into the Territory, development of new irrigation projects, and a generally awakened interest in agriculture are bringing the livestock industry of New Mexico forward at a rapid rate. The cattle, sheep, and goat interests are growing, and farm and range horses are being improved in size and qualty. In view of the fact that the livestock industry is the leading industry of New Mexico and that its further development has wonderful possibilities, a strong course in animal husbandry has been planned with special reference to Territorial conditions. This course aims to meet the growing needs of the Territory. The subjects are pursued from a practical as well as a scientific standpoint' having in view the thorough equipment of young men for successful work in breeding, care, and management of large herds.

Stock Judging. A & B. This is a practical course in the study of animal form and quality, and their relation to the utility of the animal. The score card is used until the student gets thoroughly familiar with this system, when classes are made up for comparative judging. This course gives the young man a knowledge of selecting the desirable animals for breeding, and gives him an idea of the types which the markets are demanding. Assistant Professor Simpson.

Required of First Year Agricultural Industrial students, last nine weeks of first semester and first nine weeks of second semeter, 5 hours.

Care of Animals. C. A course of lectures on the general care, stabling, feeding, and management of livestock, together with a study of some of the more common diseases and ailments of farm animals and their treatment. The student gets sufficient knowledge of the causes and prevention of diseases to enable him to properly care for his own stock and stop unnecessary losses. Assistant Professor Simpson.

Required of Third Year Agricultural Industrial course students, second semester, first 9 weeks, 5 hours.

Stock Feeding. D. Elementary work on the principles of animal feeding, as applied to the profitable production of horses, cattle, sheep and swine. Special attention is given to the choice of feeds available to New Mexico farmers and their relative values in feeding different classes of stock. Practice is also given in compounding balanced rations. Professor Foster.

Required of Third Year Agricultural course students, second semester, last 9 weeks, 5 hours.

Veterinary Elements. F. This course takes up some of the diseases and ailments which are most commonly met with among our farm animals. It includes the general care of sick animals, causes, prevention, diagnoses, and treatments. The work is supplemented by practice of some of the common operations such as floating teeth, trimming feet, stitching wounds, dehorning, and castrating. Assistant Professor Simpson.

Required of Fourth Year Agricultural Industrial students, second semester, last 9 weeks, 5 hours.

Plant and Animal Breeding. E. Students are given instruction in the general principles of plant and animal breeding, on the influences that affect heredity and in the care and management of breeding stock. Pedigrees and methods of keeping livestock records are given careful consideration, also the variation and crossing of plants and the origin of domestic varieties. Professor Foster.

Required of Fourth Year Agricultural Industrial students, last 9 weeks, first semester, 5 hours.

Score Card Practice. 1. This course covers the same ground as courses A and B of the Industrial course. It is given in a more concise and condensed form but aims to bring the student to the same level in the work as those of Division B. Assistant Professor Simpson.

Required of Agricultural Freshmen in Division A, first semester, 4 hours practice.

Care of Animals and Veterinary Elements. 2. This is the same work which is given in course C and F of the Industrial course, only given in more condensed form. Assistant Professor Simpson.

Required of Agricultural Freshmen in Division A, second semester 2 hours.

Principles of Feeding and Breeding. 3. This course covers the same work as courses D and E in the Industrial course. Professor Foster.

Required of Agricultural Freshmen in Division A, second semester, 3 hours.

Care and Management of Livestock. 4. This course consists of lectures on the feed, care, management, and sheltering of all classes of livestock. The arrangement of barns, lots, pastures, etc., for convenience, economy in feeding and caring for, and sanitation, as well as the most profitable and practical ways of preparing feed for stock, are given attention. Assistant Professor Simpson.

Required of Agricultural Sophomores, first semester, 3 hours.

Judging Livestock. 5 & 6. This course is especially valuable to young men who expect to deal in any way with the livestock interests. Students are drilled in the comparison of animals from the standpoint of the various market classes, breeds, and their utility and adaptability to different conditions. The more practical work of judging is supplemented by text book and lecture work on the history, development, characteristics, and suitability for various purposes of horses, cattle, sheep, swine and poultry. The student is familiarized with the different breeds, as to their excellencies and deficiencies, special atteetion being given to discussing the breeds best adapted to New Mexico conditions. Animals from the college herd supplemented by stock belonging to neighboring ranchmen and farmers are used. Assistant Professor Simpson.

Required of Agricultural Sophomores, second semester, 2 hours, Agricultural Juniors, first semester, 3 hours.

Stock Feeding. 7. The principles underlying the profitable feeding of animals are taken up in this course. A study of the digestive system, principles of nutrition, and the composi·

tion of different feed stuffs, with a comparison of their relative values in feeding different kinds of stock, obtained from a study of the experiments conducted at the different stations. Special emphasis is put upon the compounding of rations from feeds available to New Mexico farmers and the profitable feeding of stock under New Mexico conditions. Professor Foster.

Required of Agricultural Juniors, second semester, 3 hours.

Animal Breeding. 8. This course covers the laws governing the breeding of animals and includes study of breed formation, principles of heredity, laws of correlation, variation, fecundity, atavism, in-and-in breeding, parentage, form types, and pedigrees. Attention is given to the selection of such animals as would aid in the improvement of New Mexico stock. Professor Foster.

Required of Agricultural Seniors, second semester, 2 hours.

Animal Anatomy. 9. Consists of text book and lecture work on the general anatomy of domestic animals. The purpose of this course is to familiarize the student with the structure of farm animals so that he can more intelligently select and care for his stock. The work covers the following subjects:—a study of locomotory apparatus, including bones, articulations and muscles, a more general study of the blood vessels, nerves, and all the internal organs; and the functions of each system, demonstrated by use of charts and animals. Assistant Professor Simpson.

Elective for Animal Husbandry Seniors, second semester, 3 hours.

Examination for Soundness. 10. This course consists of a series of lectures on the system of examination for unsoundness, the conformations which predispose to unsoundness, comparisons of normal and abnormal conditions, and the effect of the latter upon the use of the animal. Also includes a study of horse vices and means practiced by unscrupulous horseman to hide certain defects. Assistant Professor Simpson.

Elective for animal Husbandry Seniors, first nine weeks of first semester, 3 hours.

Principles of Horseshoeing. 10a. Takes up a study of the right and wrong conformation of legs and feet of the horse, with their effect upon the direction of action; the structure of the hoof, and the methods of shoeing normal and diseased feet; ways by which faulty conformation may be corrected. The object of this course is to so instruct the student that he may avoid having his horses ruined by some ignorant and untrained blacksmith. Assistant Professor Simpson.

Elective for Animal Husbandry Seniors, last nine weeks of first semester, 3 hours.

Obstetrics. 11. This includes lectures and text book work on the care of pregnant animals, fecundation, causes, and prevention of sterility and abortion, pathology of gestation, normal parturition, and dystocia. Assistant Professor Simpson.

Elective for Animal Husbandry Seniors, second semester, 2 hours.

Herd Books & Pedigree Study. 12. This course is intended for those students who expect to become breeders and improvers of stock. It affords a training in the intelligent use of herd books, and a study of the prominent families and influence of using their blood for improvement of our stock. It also gives a knowledge of the results of crossing various families and strains. Assistant Professor Simpson.

Elective for Animal Husbandry Seniors, first semester, 2 hours.

Animal Diseases. 13. This course is designed to give the student a general knowledge of some of the most dangerous, and common contagious and infectious diseases. The methods and importance of eradicating such diseases from our herds and thus stopping a great leak from the profits of live-stock industry is given special attention, Assistant Professor Simpson.

Elective for Agricultural Seniors, second semester, 2 hours.

DAIRYING

The completion of the new irrigation projects which will render vast desert areas productive, the breaking up of immense range areas into numerous smaller holdings, and the conquest of the markets to the south and southwest of us, will have a marked influence upon the dairy industry in New Mexico. Owing to the naturally good conditions of climate and markets dairying has a very bright future.

Farm Dairying. A. This course is intended to give the student a good understanding of the more modern methods of farm dairying. It includes the care of milk and dairy utensils, cream separating, testing and marketing milk, and in general all the means which will aid in the sanitary production of and marketing pure milk. Assistant Professor Simpson.

Required of Second Year Industrial Agricultural course students, first semester, first 9 weeks, 5 hours.

Milk and its Products. 1. This course comprises a study of the properties of milk and its products. A thorough discussion of the following subjects is taken up in the class room and laboratory: sanitary conditions in the milking house, care of milk, creaming, separating, testing, pasteurizing, and marketing. It also includes a study of the secretion, composition, food value, care, changes, and adulteration of milk. A thorough study of the hand separator and the use of the Babcock test is given. Assistant Professor Simpson.

Required of Agricultural Sophomores, second semester, 1 hour plus 4 hours practice.

Dairy Management and Butter Making. 2. Comprises a study of cream ripening, churning, working, packing, and marketing butter. Dairy markets and the value and use of dairy by-products are also discussed in class room. Special attention is also given to the location, construction, drainage, ventilation, etc., of dairy buildings. Assistant Professor Simpson.

Elective for Animal Husbandry Seniors, first semester, 2 hours plus 2 hours practice.

Equipment

The new Agricultural building (Wilson Hall) referred to in another place has been occupied since February. This building contains class and laboratory rooms for the work in

Agronomy, Animal Husbandry, Horticulture, Dairying, and Irrigation Engineering. Excellent laboratory equipment in several of these departments is at the command of the students of these courses.

The College Farm. The farm connected with the College contains one hundred and seventy acres of land under irrigation, a portion of which is divided into fields and plats for use in demonstrating class room work. The crops grown include various grasses, cereals, roots, forage, and other farm crops which make useful adjuncts in the student's study of crop growing.

Agricultural Engineering. A room 24 feet by 31 feet will be used for the display of farm machinery, showing parts, actions, ect. Each group of farm implements is represented by different patterns. A room is devoted exclusively to farm motors, and in this room are placed a number of gasolene engines of various styles. Special effort is constantly made to have the latest improved farm machines, thus enabling the students to study the different machinery used in this as well as other sections of the country. Farm machinery and implements and farm motors have been added to the Agricultural Engineering laboratory equipment to the value of about $8,000.00 during the last year. Therefore one of the best equipments for an Agricultural Engineering laboratory is available for instruction purposes.

Pumping plants have been installed which give opportunity for studying the possibilities in pumping for irrigation. Other equipment, such as weirs, adjustable spill-gates, various kinds of measuring apparatus, etc., is available for study.

Livestock. The equipment in livestock is very good. Various breeds of cattle are represented in the college herd by both males and females of the standard dairy and beef breeds: Jerseys, Guernseys, Holsteins, Herefords, and Shorthorns. The breeds of sheep represented are Rambouillet, Shropshire, Lincoln, and Hampshire Down as well as Angora goats. Four breeds of swine are represented—

Tamworth, Yorkshire, Doroc-Jersey, and Berkshire. They are all fine specimens of the respective breeds and come from the prize-winning stock of the Chicago international show. Recognizing the growing importance of the poultry industry, there has been installed a complete new equipment. Representatives of the leading breeds have been purchased from the best breeders and placed in a modern poultry house.

Dairy Laboratory. In the new building there have been set apart two large rooms for dairying; one, a farm and experimental laboratory; the other, the home dairy. The latter is used for class instruction purposes only. The two dairies are equipped with everything that is best in the dairy line. Bottling, washing, and pasteurizing apparatus are of the very latest models as are also the churns, separators, and cheese presses. Several makes of farm separators are used in the laboratory where the students will have ample opportunity to study the merits of the different machines.

Student Labor. In connection with the investigations of the Department there are many opportunities which will enable industrious students to use a certain amount of their time for practical work. This labor is paid for at the rate of from 12½ cents to 20 cents per hour. Naturally, work of this nature can be made an important aid to those who desire to pay part of their expenses while in college.

DEPARTMENT OF HORTICULTURE

Professor García | Mr. Mundell

The endeavor in teaching this subject is to acquaint the students with the scientific and practical phases of horticulture, having in view the thorough training of young men for successful work in horticultural pursuits, such as fruit growing, nursery business, and market gardening, and to fill positions as fruit farm managers, experiment station workers, and teachers in horticulture. The instruction is given by text-books and lectures, supplemented by outside reading, laboratory practice, and field observations.

INDUSTRIAL COURSES

It is the aim to give the student the largest amount of thoroughly practical information about gardening, fruit growing, and general horticulture possible during the course. Since this work is outlined mainly for the student who is not going to go through the more theoretical and scientific college course, it will be made as practical as possible. The student is *expected to learn by doing.*

Plant Propagation. A. The work will be introductory in nature, and will consist of simple, short lectures, and considerable amount of laboratory work. The student will learn how to start plants from seeds, cuttings, layers, bulbs, tubers, and grafts. Mr. Mundell.

Required of First Year Agricultural Industrial students, first half of second semester, 5 hours.

Vegetable Gardening and Forcing. B. Planning and laying out vegetable gardens, preparing seed beds, planting, transplanting, irrigating, and making hot-beds and cold-frames are some of the practical exercises in which the student will take part. This work will be supplemented by short talks and outside reading. Mr. Mundell.

Required of Second Year Agricultural Industrial students, last half of second semester, 5 hours.

Elementary Economic Entomology. C. In this course the student will get some knowledge of the principal groups of injurious insects and of the different methods of destroying them. Professor García.

Required of Third Year Agricultural Industrial students, first half of first semester, 5 hours.

Orcharding. D. The work will include the subjects of picking, packing, marketing, classifying, and judging fruits, and spraying. Professor García.

Required of Fourth Year Agricultural Industrial students, first half of first semester, 9 weeks.

Orcharding. E. This is a continuation of course D. The principal topics treated will be laying out fruit orchards, planting, pruning, and spring spraying. Professor García.

Required of Fourth Year Agricultural Industrial students last half of second semester, 5 hours.

Gardening. E. This work will be more or less introductory in nature and will consist of simple lectures, general talks, and laboratory practice on vegetable growing, floriculture, and landscape gardening. The student will be expected to keep notes on all the work and prepare plans for planting vegetable and ornamental home gardens.

Required of Third Year Domestic Science students, second semester, 9 weeks, 4 hours and 2 hours practice.

COLLEGE COURSES

Fruit Growing. 1. This course will be somewhat similar to the work given under Orcharding in Industrial courses D and E, but the intention is to make it more concise and broader in scope. The student will become familiar with planting and care of orchards, picking, packing, and marketing fruit, etc. Professor García.

Required of all Agricultural Freshmen, first semester, 1 hour plus 2 hours practice.

Elementary Economic Entomology. 2. This course while similar to Industrial course C will be quite comprehensive.

The insects injurious to farm crops in New Mexico will be studied. Professor García.

Required of all Agricultural Freshmen, first semester, 2 hours practice.

Elementary Horticulture. 3. The work in this course will be similar to that given under Industrial courses A and B. It will necessarily be somewhat introductory in nature, yet sufficiently comprehensive to form a basis for further advanced work. The student will learn how to start new plants, grow vegetables, plant gardens, graft, bud, prune, etc. Mr. Mundell.

Required of all Agricultural Freshman, second semester, 1 hour plus 4 hours practice.

Landscape Gardening. 4. A study of systems of landscape gardening, comprising such subject matter as laying out and planting residence grounds, hotel, and public parks; location and setting of houses and other buildings; avenues, drives, walks; ornamental trees, shrubs, and flowers adapted to planting in New Mexico; lawns, beds, and borders; grouping, variation, and the general principles involved in the arrangement and planting of home grounds and farms for beauty, comfort, and utility. Each student should provide himself with a set of drawing instruments. Professor García.

Required of Agricultural Sophomores, second semester, 1 hour plus 2 hours practice.

Forestry. 5. This includes the study of wind-breaks, utility of forest plantations, and the general influence of forests on the climate and water courses. Forest and street tree planting will also receive attention. Professor García.

Required of Agricultural Sophomores, first semester, 3 hours.

Olericulture. 6. The theory of vegetable growing together with exhaustive studies of special groups and varieties of garden vegetables will be taken up, as well as their variations and adaptations to special purposes and conditions. Mr. Mundell.

Required of Agricultural Sophomores, second semester, 2 hours.

Pomology. 7. This work will take up a discussion of the principles underlying pomology, with reference to the principal types and varieties of cultivated fruits and their related forms, together with a consideration of their variations, modifications and adaptations under culture. Professor García.

Required of Agricultural Juniors, first semester, 2 hours.

Pomology. 8. This is a continuation of Course 7 and includes a phenological study of the more important varieties of our orchard fruits. Professor García.

Required of Agricultural Juniors, second semester, 2 hours plus 2 hours practice.

Advanced Economic Entomology. 9. This is a study of the development, work, transformation, habits, and life histories of the beneficial and injurious species from the point of view of the investigator, and it is intended not only to let the student become acquainted with the insects themselves but also to familiarize him with the literature of the subject and the economic methods of extermination. Professor García.

Required of Agricultural Seniors, first semester, 2 hours.

Plant Breeding. 10. The student having completed his biological studies is prepared for a discussion of plant breeding and the evolution of cultivated plants. Selection, crossing, variation, mutation, and the influence of environment, food, etc., are investigated. Professor García.

Required of Horticultural and Agronomy Seniors, first semester, 5 hours.

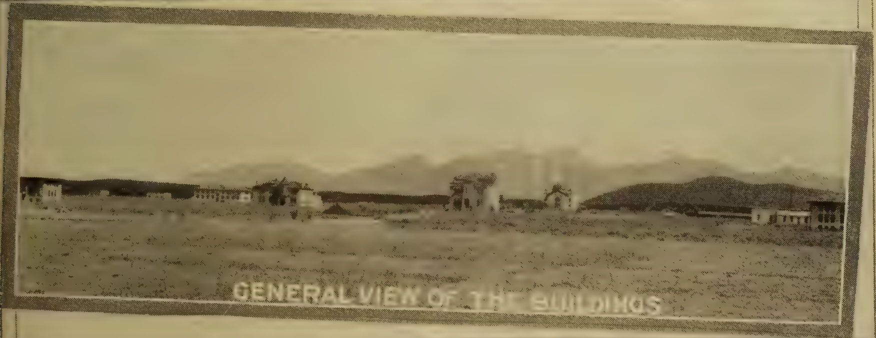
Storage and Preparation of Fruits. 11. This course will include the study of the different methods of storing fruits and vegetables, and the preparation and use of the different preservatives for the preserving of fruits and vegetables for exhibition purposes. Mr. Mundell.

Required of Horticultural Seniors, first semester, 2 hours practice.

Viticulture, Small Fruits, and Nut Culture. 12. A study of the cultivation of the grape, small fruits, and the different nut-bearing trees. Professor García.

Required of Horticultural Seniors, first semester, 2 hours.

THE SENIOR BENCH



GENERAL VIEW OF THE BUILDINGS

THE ROAD THROUGH THE FARM

Theory of Pruning. 13. The philosophy of pruning, the reasons why no two fruits or even trees can be pruned just alike, the fruit spurs and fruit buds are discussed in this course. Professor García.

Required of Horticultural Seniors, second semester, 2 hours.

Tropical Fruits. 14. A study of the culture, classification and evolution of the tropical and semi-tropical fruits. Mr. Mundell.

Required of Horticultural Seniors, second semester, 1 hour.

Literature of Horticulture. 15. This course is given to discussions of literature pertaining to Horticulture. Bulletins of Experiment Stations, current horticultural papers, and magazines are reviewed. Professor García.

Required of Horticultural Seniors, second semester, 2 hours practice.

Phenological Field Work. 16. Students taking this work will be required to take notes of the blooming, fruiting, growth, etc., of different fruits and vegetables. Mr. Mundell.

Elective for Agricultural Seniors who have taken Horticulture 2 and 5, 2 hours practice.

Codling Moth Investigations. 17. The object of this course is to familiarize the student with the life history, eating habits, and literature of the codling moth. The student will be expected to carry on life history investigations in breeding cages in the laboratory, and in the field. Professor García.

Required of Horticultural Seniors, second semester, 2 hours.

Equipment

The department library contains a number of books of reference on horticultural subjects, such as the Cyclopedia of American Horticulture, the Illustrated Dictionary of Gardening, Pruning Book, Evolution of Our Native Plants, the reports of the American Pomological Society, and many monographs on the different orchard fruits, small fruits, vegetables, and flowers. In addition to a number of different styles of orchard and garden cultivators, the department has a good supply of the different kinds of pruning knives, shears, and saws, as well as garden trowels and dibbers. There are five kinds of sprayers: a knapsack, a barrel force pump, a kerowater pump, a large Wallace power sprayer, and a gasolene power sprayer. All of these are used in the practice work and students wishing to make a special study of any of these implements are at liberty to do so. There is a fair collection of fruits preserved in formalin to which the student has free access for studying varieties.

The experimental orchards and vineyards contain many varieties of fruit trees and vines. An experimental apple orchard and a plantation of strawberries and other small fruits have been planted, as well as a vineyard to study varieties of the *Vitis vinifera* grape and its resistance to the crown-gall. The vegetable gardens, greenhouse and cold frames afford excellent opportunity for study and experiment. The arboretum, forestry plantations, and lawns give enlarged facilities for observation and study.

Constant additions are being made to the equipment. The experimental work of the Experiment Station, carried on by this department may be made an excellent adjunct to the instruction given in class, affording as it does opportunity for the student to become acquainted with different lines of investigational and practical horticulture. The students are also given an opportunity to visit the commercial orchards, vineyards, and truck gardens of the neighborhood for study and observation. The department has secured a 23-acre farm to be used for experimental purposes, where all the investigational work is conducted.

The Department has recently moved into the second floor of the new Agricultural Hall, where it has an office, a class room, and a large laboratory. The laboratory is being equipped as fast as possible. It now contains a number of insect breeding cages for the study of the habits and life histories of some of our injurious insects. It is planned to purchase soon a number of small glass covered cases, samples of seed of all the vegetables, a set of wax models of the orchard fruits, and a collection of specimens of our different forest trees.

DEPARTMENT OF BIOLOGY

Professor Wooton — Assistant Professor Standley

The work required in biology in the preparatory and industrial courses is only elementary and general in character, and designed to present the general principles of the subject to the student and at the same time introduce him to a limited number of types of the various larger classes of animals and plants. Half his time is devoted to zoology and half to botany. Only the more fundamental facts of each subject will be presented and the student will be required to handle the plants and animals themselves.

The college courses will go further into the subjects and require a greater amount of laboratory work and a greater degree of skill in manipulation from the student.

Elective courses are offered by this department in either zoology or botany, the particular branch of either subject being largely at the option of the student. Special facilities for the study of the flowering plants of New Mexico are to be obtained at this institution. All students electing work in this department must have completed all the biology work offered in the General Science course. All such electives will be accepted as minors for graduate work. Students doing major graduate work in this department must have done one year of elective work in some biological subject besides that above mentioned, and for that major must do not less than ten hours per week for one year. Arrangements for all elective and graduate work must be made with the head of the department.

General Zoology. A. Most of the time is taken up in the discussion of the general biological principles which apply to living organisms. The work covers the following subjects as they apply to animals: the cell conditions of life, reproductory methods, function and structure, adaptations, associations with the same and different species, special senses, instinct, distribution, etc. During the laboratory period dissections of a few of the more common types are made and drawings representing the various systems of organs are required. Text book, "Animals," by Jordan, Kellogg, and Heath. Professor Wooton.

Required of all Second Year College Preparatory and Industrial course (except Business) students, first semester, 3 hours recitation and 4 hours practice.

Advanced Zoology. 1. The work of this course is of collegiate grade and consists of a consideration of the larger groups of animals studied by means of types. Special attention is given to those forms which connect the larger groups, and occupy critical positions in the scheme of classification. Parker & Haswell's text is used for reference. Professor Wooton.

Required of General Science and Household Economics Sophomores, first semester, 2 hours lectures and 6 hours practice.

Advanced Physiology. 4. A course in general human anatomy and physiology is a prerequisite of this course. The course consists of lectures and recitations in the anatomy, histology, physiology, and hygiene of the body. Excellent casts, microscopic sections, and other material for demonstration and study are at the command of students in this course. Assistant Professor Standley.

Required of Sophomores in the General Science and Household Economics and Juniors of the Agricultural course, second semester, 5 hours.

General Botany. B. The work done in this class will be the study of the morphology and physiology of the flowering plants. Some attention will be given to elementary ecology and the economic importance of plants will be presented as a means of fixing facts in the memory. A little time will be given to the commoner cryptogams. Text-book Bergen's "Elements of Botany". Professor Wooton.

Required of all Second Year College Preparatory and Industrial course (except Business) students, second semester, 3 hours recitation and 4 hours practice.

Advanced Botany. 2. The development of the plant kingdom is studied in this course. Students examine material of all orders of plants and study the development of the plant body and the increase in specialization of the reproductive processes. The laboratory time is relatively large and students receive instruction in microscopic technique with plant material. Text-book Bergen & Davis' "Principles of Botany." Professor Wooton.

Required of General Science and Household Economics Sophomores, second semester, 2 hours recitation and 6 hours practice.

Bacteriology. 3. Lectures and demonstration work on bacteria of water, air, soil, and foods, and those causing fermentation and disease. Special attention is given to the relation of bacteria to wounds, disease, and sanitation. Professor Wooton.

Required of Juniors of the Household Economics course, first semester, 2 hours.

Plant Diseases. C. The work of this course treats of the various diseases which affect the common field, orchard, and garden crops, with a consideration of the best methods of preventing or curing the diseases. The work is practical in nature. Professor Wooton.

Required of Third Year students of the Industrial course in Agriculture, for nine weeks of the second semester, 5 hours.

Agricultural Botany. 5 & 6. This course is especially adapted to the general botanical needs of students of the Agricultural Course. A full year's course in general biology at least half of which has been devoted to the flowering plants is a prerequisite of this work. The subjects considered are general morphology and histology of the Spermatophytes; general plant physiology with experimental work in the greenhouse; taxonomy of the commoner cultivated plants, special attention being given to grasses; a consideration of seeds and weeds; common fungous and bacterial diseases of plants with remedies; bacteria as related to the farmer. Prof. Wooton.

Required of Freshman Agricultural students throughout the year, 2 hours recitation and 6 hours practice.

Plant Histology. 7. A study of plant tissues with special reference to the structure and uses of different parts of the structure and uses of different parts of the plant body. Microscopic examination of foods and their adulterants. Professor Wooton.

Elective for all students who have completed Botany B and 2, 10 hours practice thoughout the year.

Plant Physiology. 8. This course considers the physiological processes of plants by the laboratory method. The work also includes the reading of some of the best reference texts and conference with the teacher. Professor Wooton.

Elective for all who have completed Botany B and 2, 10 hours practice throughout the year.

The Plant Families. 9. A general course on the morphology and taxonomy of the Spermatophyte families as set forth in the latest texts on the subject, with examination of representative material from the herbarium. Professor Wooton.

Elective for all who have completed Botany B and 2, 10 hours practice throughout the year.

Taxonomic Research. 10. The revision of any good sized genus or small family of plants of which there is representative material in the herbarium. Or an examination of the flora of any given restricted region and a consideration of the factors governing the distribution of the plants of such a region. Professor Wooton.

Elective as a major for the master's degree, for all students who have completed Botany B and 2, and who have had sufficient training in botanical taxonomy to insure proficiency in such work; reading, conference, and 10 hours practice throughout the year.

Equipment

This department occupies three rooms on the upper floor of Science Hall. One room is used solely as a laboratory for biology and physiology. It is equipped with gas, water, tables, cases, dissecting and compound microscopes, microtomes, necessary instruments and materials, charts, casts, bacteriological incubator, ovens, and a general assortment of apparatus, glassware, and reagents for all kinds of biological work. A small greenhouse in connection with the biological laboratory gives facilities necessary for work in plant physiology. A second room is used as the herbarium. In it are the college herbarium of about 25,000 sheets and the private herbarium of the head of the department, about 6,000 sheets. These two herbaria contain representatives of perhaps 85 per cent of the species of flowering plants and ferns of the Territory of New Mexico. There are also about 2,000 specimens of fungi and algae represented, the greater portion of these being named fungi of economic importance. The herbarium has abundant case and table room. The third room is used as an office for the department, and contains the departmental library of 535 volumes, and several hundred bulletins and pamphlets. This library contains the leading texts and manuals in botany and zoology, with many valuable and rare old books relating to the flora of this region.

GEOLOGY

The work in Geology is taught by lectures and recitations with prescribed text-book reading. Occasional field work is arranged for as often as facilities will permit.

Physiography. A. B. In the work of this course the attention of the student is directed to the physical condition of the world in which he lives. He is expected to appreciate his material surroundings both animate and inanimate and attempt to understand how they have come to exist in their present state. He considers the effects of the air, water, and living organisms, man as well as others, upon the earth, and also recognizes the relations of the conditions so produced to man's existence and institutions. One period per week will be dovoted to laboratory exercises or outdoor excursions for observation. Assistant Professor Standley.

Required of all First Year students of College Preparatory and Industrial courses, throughout the year, 4 hours recitation and 2 hours practice.

General Geology. 1. Includes dynamical, structural, and physiographic geology, some considerable stress being laid upon rocks, rock-making minerals, and their derivative soils. Chamberlin and Salisbury's geology, Vol. I, is used as textbook.

Required of all (except Agricultural) Seniors, first semester, 3 hours.

Historical Geology. 2. A detailed treatment of the geological history of the earth together with some elementary work in paleontology.

Required of Seniors of the General and Household Economics courses, second semester, 3 hours.

Equipment

The department of Geology occupies one room on the second floor of Science Hall and has at its disposal a collection of the common minerals, the U. S. Geological Survey collection of rocks, a Bausch and Lomb petrographic microscope, several hundred fossils, numerous casts and maps, and a departmental library of over 250 volumes and many pamphlets.

DEPARTMENT OF PHYSICS

PROFESSOR TINSLEY ASSISTANT PROFESSOR STOCKTON

PHYSICS

The course in General Physics is designed to present a general survey of the subject and acquaint the students with the fundamental conceptions of matter and energy, their laws, and the practical application of these to the problems of engineering, agriculture, etc. The method of instruction is by recitations, lectures, demonstrations, and laboratory practice.

Elementary Physics. A. Introductory principles of the subject as covered in Milligan and Gale's First Course in Physics. The Mechanics of solids and fluids, and Heat. Assistant Professor Stockton.

Required of all Fourth Year students in the College Preparatory and Industrial courses, except the Commerce course, three hours recitation and four hours laboratory. First semester.

Elementary Physics. B. Electricity, Sound, and Light. Continuation of course A. Assistant Professor Stockton.

The same requirements and hours as Course A. Second semester.

General Physics. 1. The course in Elementary General and Experimental Physics, A and B, are prerequisite to the college courses in physics and the student must also have had or be taking plane trigonometry. Text-book, Crew's General Physics. The Mechanics of solids and fluids, and Heat. Assistant Professor Stockton.

Required of Sophomores in the Engineering courses, Juniors in the General course, and elective for students in other courses, three hours recitation and four hours laboratory. First Semester.

General Physics. 2. Electricity, Sound, and Light. Continuation of Course 1. Assistant Professor Stockton.

The same requirements and hours as course 1. Second Semester.

Advanced Physics. 3. Advanced work, principally experimental, adapted to the needs of the students. Assistant Professor Stockton.

Elective for students who have completed Physics 1 and 2, and a minor for graduate students. Three hours recitation or six hours laboratory per week for a semester is required as a minimum.

SOIL PHYSICS

These courses are designed to meet the increasing demand among agricultural students for a more intimate and extensive acquaintance with the soil. Students who specialize in this work are fitted for positions in survey and other soil investigations which are being carried on extensively by the general government and the states.

Students who desire to specialize in Soil Physics are required to complete the prescribed work in the Agricultural course through the Sophomore year. In the Junior and Senior years they will substitute Physics, advanced Chemistry, and advanced Soil Physics for the Animal Husbandry subjects in the Agricultural course and will be expected to select elective courses which have special reference to their profession.

Elementary Soil Physics. A. This work is intended to give students in the Industrial course in Agriculture a brief but comprehensive survey of the principles of soil physics which have a most important bearing on the problems of soil cultivation and fertility. The instruction is given by laboratory exercises accompanied by recitations and demonstrations. Professor Tinsley.

Required of Fourth Year students in the Industrial course in Agriculture, five hours per week during the second half of the second semester.

Soil Physics. 1. A study of the origin and physical properties of soils, by lectures, recitations, and laboratory practice. Special attention is given to the relations of soils to water. The laboratory and field practice include soil sampling, determinations of moisture, salt content, water holding power, mechanical analyses, classification, and mapping. Professor Tinsley.

Required of Agricultural Juniors, and elective for other students, six hours practice per week. First semester.

Advanced Soil Physics. 2. Advanced work on soils. Professor Tinsley.

3. Elective for those who have completed Soil Physics 1, and as a minor for graduate students, and required of special soil students on the completion of Soil Physics 1. Six hours of laboratory practice per week for a semester is required as a minimum.

Graduate Work on Soils. 4. Advanced work on soils to further train students in practical methods of soil investigation. Professor Tinsley.

Offered as a major for graduate students who are specializing in this line and have completed Soil Physics 1, 2, and 3. The equivalent of 10 lecture hours per week for each semester is required.

Meteorology. 5. A study of the common meteorological instruments, their construction and uses, and the relation of climate to crops in New Mexico, by means of lectures and recitations with laboratory practice. Professor Tinsley.

Required of Agricultural Juniors and elective for other students, two hours per week, first semester.

Equipment

This department occupies two rooms on the second floor of Science Hall.

The physical laboratory is a large room (50x20 ft) on the south side of the building, well adapted to physics work. It has in it a dark room, supplied with gas and water, for photometric and photographic work, wall cases for the storage of apparatus, lecture table, and wall desks for student work.

The room devoted to soil work is well fitted with work desks, tables, and shelving, and is supplied with gas and water.

The physical laboratory is well supplied with apparatus for the usual class demonstrations and practice. In addition there are a number of pieces of finer apparatus for advanced work; e. g. Atwood's machine, balances, barometer, thermometers, including one of Green's standards, spectrometer, polariscope, stereopticon, photographic outfit, Rowland D'Arsonval and tangent galvanometers, resistance box, standard cell, and Wheatstone bridge.

The soil physics laboratory is especially well equipped, this being one of the prominent lines of investigation of the Agricultural Experiment Station. The equipment includes electrical apparatus for the determination of "alkali" in soils and waters, electrical soil hygrometers and accessories, soil samplers, drying ovens, balances and weights, shaker, water motor and centrifuge for mechanical analyses of soils, and the necessary glass and platinum ware and reagents for carrying on investigations of the physical properties of soils and their salt content. For the work in meteorology, in addition to an evaporation tank and anemometer, there is a complete set of self recording instruments, automatically registering the wind direction and velocity, amount of rainfall, hours of sunshine, temperature, humidity, and barometric pressure.

DEPARTMENT OF CHEMISTRY

PROFESSOR HARE ASSISTANT PROFESSOR MITCHELL
MR. BJERREGAARD

Students desiring to pursue a four years course in chemistry at this institution may do so by registering in the General Course and substituting for the electives, which are there given in the Sophomore, Junior, and Senior years, such courses in chemistry as are offered below that may be selected, when these are preceded by all requisite courses. Instruction is given by means of lectures accompanied by demonstration experiments, recitations, and a large amount of laboratory practice. During the third year of the Industrial courses in Agriculture and Household Economics, and the Freshman year for all college courses laboratory practice consists of work on the properties of the elements, demonstrations by actual experiment of the fundamental chemical laws, detection and preparation of simple substances, and the separation of inorganic compounds. This laboratory work is followed in the Sophomore, Junior, and Senior years by the quantitative analysis of salts, minerals, soils, fertilizers, waters, foods and feeding stuffs, insecticides, fungicides, and various agricultural products.

The instruction in advanced chemistry relates to the manufacturing industries, physiological chemistry, soils and fertilizers, and the chemistry of plant and animal life.

A year's course is offered to those who wish to become practical assayers. Those students taking this work must also take the courses offered in general chemistry, mineralogy, and geology.

In the selection of elective courses offered in Chemistry those students who are pursuing the General Course with major in chemistry must consult the head of the Chemical Department.

Elementary Chemistry. A. This is a brief outline of the fundamental laws and theories of chemistry which is intended as an aid to a better to a better understanding of certain subjects which are taught in the Industrial courses in Domestic Science and Agriculture. McPherson and Henderson's Elementary Study of Chemistry and Exercises in Chemistry. Assistant Professor Mitchell.

Required of third year Industrial students in Agriculture and Domestic Science first semester, 3 hours recitations, and 4 hours practice.

General Chemistry. 1. A study of the principles of chemistry as given in Alex. Smith's General Chemistry for Colleges and Laboratory Outline of General Chemistry. Assistant Professor Mitchell.

Required of Freshmen in all college courses and of students in assaying first semester, 3 hours recitation and 4 hours practice.

General Chemistry and Qualitative Analysis. 2. This course is in part a continuation of the previous semester's work in general chemistry, and in addition a course in qualitative analysis is included that consists principally of laboratory experiments in inorganic qualitative analysis. Must be preceded by course 1. Green and Vanderkleed's Qualitative Inorganic Chemistry. Assistant Professor Mitchell.

Required of Freshmen in all college courses and of students in assaying, second semester, 3 hours recitation and 4 hours practice.

Organic Chemistry. 3. A study of the hydrocarbons and their derivatives as outlined in Remsen's Organic Chemistry, and laboratory experiments in Practical Organic Chemistry by Garret and Harden. Must be preceded by courses 1 and 2. Professor Hare.

Required of Sophomores in General Science and Household Economics courses, first semester, 3 hours recitation and 4 hours practice.

Quantitative Analysis. 4. Mostly laboratory work in which Evan's Quantitative Chemical Analysis and other suitable texts are used. Must be preceded by course 1. Assistant Professor Mitchell.

Required of all General Course Sophomores whose major is chemistry, second semester, 10 hours practice.

Agricultural Chemistry. 5. Chemistry of Soils and Fertilizers, and Chemistry of Plant and Animal Life by Snyder. Must be preceded by courses 1 and 2. Mr. Bjerregaard.

Required of all Sophomore Agricultural students, first semester, 2 hours recitation and 6 hours practice.

Agricultural Chemistry. 6. Mostly laboratory work in which Evan's Quantitative Analysis and such other texts as are best suited to agricultural analyses are selected. Must be preceded by courses 1, 2 and 5. Mr. Bjerregaard.

Required of all Sophomore Agricultural students, second semester, 10 hours practice.

Industrial Analysis. 7. The analysis of various substances such as fuels, minerals, metals, alloys, cements, clays, paints, oils, etc., is included under this heading. Must be preceded by courses 1, 2 and 4. Assistant Professor Mitchell.

Elective for Juniors or Seniors in General course with major in chemistry, first semester, 10 hours practice.

Industrial Analysis. 8. A continuation of course 7. Must be preceded by courses 1, 2, 4 and 7. Assistant Professor Mitchell.

Elective for Juniors and Seniors in General course with major in chemistry, second semester, 10 hours practice.

Assaying and Metallurgical Analysis. 9. For the accommodation of those students in the General course who desire to elect the subject of assaying a course in dry assaying of gold, silver, and lead ores is offered. During this semester some work is also begun in the wet assay of the commoner metals. Furman's Manual of Assaying and Low's Technical Methods of Ore Analysis are used as texts. Must be preceded or accompanied by courses 1 and 2. Professor Hare.

Electives for Juniors and Seniors in General course with major in chemistry and special course students, first semester, 10 hours practice.

Assaying and Metallurgical Analysis. 10. Continuation of Course 9 including a study of the methods of analysis of the metals. Must be preceded or accompanied by courses 1, 2 and 9. Professor Hare.

Elective for Juniors and Seniors in General course with major in chemistry, and special course students, second semester, 10 hours practice.

Advanced Agricultural Chemistry. 11. This is a continuation of Course 6 and consists of the analysis of soils, waters, feeding stuffs, fertilizers, and various animal and vegetable products. It is intended as an elective for those who wish to fit themselves as agricultural analytical chemists. Must be preceded by Courses 1, 2, 3, 5 and 6. Professor Hare.

Elective for Juniors and Seniors in General Course with major in chemistry, second semester, 10 hours practice.

Food Analysis. 12. This is a course designed to fit the student as a food analyst. It is principally laboratory work in testing the composition of food and its adulteration. It should be preceded or accompanied by a course in microscopy and bacteriology. Leach's Food Inspection and Analyses, Publication Bureau of Chemistry, U. S. Department of Agriculture. Must be preceded by courses 1, 2 and 3. Professor Hare.

Elective for Juniors and Seniors, second semester, 10 hours practice.

Advanced Organic Chemistry. 13. A continuation of course 3, including ultimate analysis. Professor Hare.

Elective for all students who have finished course 3, first semester, 5 hours, 2 hours recitation and 6 hours practice.

Industrial Chemistry. 14. This is a study of the chemical principles involved in the various methods for the manufacture of acids, alkalies, glass, cements, alcohol, vinegar, and similar industries. Mr. Bjerregaard.

Elective for Seniors in General course with major in chemistry, first semester, 3 hours recitation.

Physiological Chemistry. 15. This consists of a course in the chemistry of the physiological processes in plants and animals. Professor Hare.

Elective for Seniors in General Course with major in chemistry, first semester, 3 hours recitation 4 hours practice.

CHEMICAL LABORATOR

BIOLOGICAL LABORATORY

Industrial Chemistry. 16. A continuation of Course 14. Mr. Bjerregaard.

Elective for Seniors in the General Course with major in chemistry, second semester, 2 hours recitation.

Physiological Chemistry. 17. A continuation of course 16. Professor Hare.

Elective for Seniors in the General Science course with major in chemistry, second semester, 4 hours practice.

Research. 18. This is a laboratory course for the first semester of the Senior year which permits the student to begin the analytical work of his thesis at an earlier date than the first of the second semester. Professor Hare.

Elective for General Science course students with major in chemistry, first semester, 4 hours practice.

Research. 19. A continuation of Course 18, and is intended to be used to supplement the time allowed for thesis.

Elective for all students in General Science course with major in chemitry, ssecond semester, 10 hours practice.

Thesis. 20. Some original line of investigation should be taken up in the thesis course, and when possible it should be preceded by Course 18 and accompanied by Course 19 in order that all the time possible may be devoted to the work.

Required of all Seniors in General Science course with major in chemistry, second semester, 10 hours practice.

Mineralogy. 21. This course is principally determinative mineralogy but crystallography and descriptive mineralogy are also briefly studied. Mr. Bjerregaard.

Required of all Seniors in General Science and Agricultural courses, first semester, 10 hours practice.

DEPARTMENT OF HOUSEHOLD ECONOMICS

PROFESSOR HAGGART

The purpose of this course is to interest young women in the life and well-being of the home by teaching subjects of particular value to the household. These subjects have their foundation in chemistry, physics, and biology and hence sciences find an important place in the course, along with other subjects affording general knowledge and culture. In the preparatory department the subjects are all taught with special attention to developing skill, accuracy, neatness, and economy in the handling of materials and utensils. It is the purpose of the course to teach the best and most economical methods in housekeeping. Throughout the preparatory and college courses it is the aim to dignify the work of the home by the application of the arts and scientific knowledge to its management.

INDUSTRIAL COURSES IN DOMESTIC SCIENCE

Cooking. A. This course illustrates the fundamental principles of cookery, household fuels and their uses and the effect of heat upon different foods. It also includes the cooking of cereals, vegetables, eggs, and meat together with a few lessons in batter and dough mixtures. Professor Haggart.

Required of all First Year girls in Domestic Science course, 6 hours practice per week during first semester.

Cooking. C. This course considers the preservation and care of food and includes in the laboratory work lessons in canning and preserving. In the later part of the semester the cooking of cakes, pastries, and salads will form the laboratory work. Professor Haggart.

Required of all Second Year girls in Domestic Science course, 6 hours practice per week during first semester.

General Housekeeping. G. This course aims to teach the principlesof good housekeeping; house furnishings and their care, the adjustment of home duties to relieve work of drudgery. Professor Haggart.

Required of all Third Year girls in Domestic Science course, 5 hours per week during second semester.

Advanced Cooking. H. I. This course aims to give a practical training in marketing, planning of menus, preparation and serving of meals. To this end groups of two girls will serve meal at noon in the dining room throughout the school year. A weekly seminar will be held to discuss the work. Professor Haggart.

Require of all Fourth Year girls in Domestic Science course, 5 hours practice per week through the year.

Elementary Color and Design. F. Color and design will be considered in their relaticn to clothing and house furnishings. Professor Haggart.

Required of Second Year students in Domestic Science course, 4 hours practice per week during second semester.

Sewing. B. Models will be made showing various stitches used in sewing and the application of them will be made in making aprons for use in the cooking laboratory. Professor Haggart.

Required of all First Year students in Domestic Science course, 4 hours practice per week during second semester.

Sewing. D. The course first covers the making of advanced models. The use of simple drafts and paper patterns in making two pieces of underwear. The suitability of various trimmings and materials for under garments will be considered. Professor Haggart.

Required of all second year students in Domestic Science course, 4 hours practice per week during first semester.

Sewing. E. This course is a continuation of Sewing D and a complete suit of under garments will be finished. A simple unlined dress will be designed and made. Professor Haggart.

Required of all Second Year students in Domestic Science course, 6 hours practice per week during second semester.

Advanced Sewing. J. K. Such advanced sewing as the instructor finds the students capable of doing will be allowed. Attention will be given to the use of stitchery as a means of decoration. Professor Haggart.

Required of all Fourth Year students in Domestic Science course, 5 hours practice per week through the year.

COLLEGE COURSES IN HOSEHOLD ECONOMICS

Domestic Art. 1. and 2. This course includes the making of a model book, showing the various stitches used in hand and machine sewing. As soon as the models are completed, the student drafts, cuts, fits, and makes a suit of underwear and an unlined dress. Professor Haggart.

Required of all Household Economics Freshmen of division A, 10 hours practice during the year.

Dressmaking and Tailoring. 3. This course aims to give instruction and training in the principles of garment making, taking measurements, drafting, cutting, fitting, and making dress of some cloth texture. Upon the completion of this, the remaining time will be given over to the simple tailoring of garments. Professor Haggart.

Required of all Sophomores in Household Economics course, 6 hours practice per week, first semester.

Color and Design. 4. An elementary course in color and its application in designs for house furnishings and clothing. Professor Haggart.

Required of all Household Economics Sophomores, 4 hours practice first semester.

Millinery. 11. The practical construction of hats of typical kinds and their trimmings for all seasons. Professor Haggart.

Required of all Seniors in Household Economics course, 2 hours practice per week, second semester.

Household Art. 12. Materials suitable for various uses in the home and for clothing; color and design in house furnishings and clothing; use of stitchery, stenciling, etc., as a means of ornament; hygienic properties and cost. Professor Haggart.

Required of all Seniors in Household Economics Course, 4 hours practice, second semester.

Textiles. 13. This course covers the study of fabrics, their beginnings in the arts and industries; the development of spinning and weaving; modern processes of manufacture and their economic value. The laboratory work includes the dyeing and cleansing of fabrics. Professor Haggart.

Required of all Seniors in Household Economics Course, 2 hours plus 2 hours practice, second semester.

Foods. 5. This course includes a study of food constituents such as sugars and starches found in fruits, vegetables, and cereals; proteids in meats, milk, and eggs; and fats in butter and oils. In practice work vegetables, cereals, fruit, eggs, and meat will be cooked. Professor Haggart.

Required of all Sophomores in Household Economic course, 2 hours plus 6 hours practice, second semester.

Economic Uses of Food. 6. This will be a continuation of the previous year but will apply particularly to a study of manufactured products like flour, beverages, etc. The relative cost of food will be considered throughout the term. At the beginning of the term, attention will be directed mainly to the preservation of food and the practice work will include canning and preserving. The cooking of batter and dough mixtures, with more complex dishes such as salads, pastries, cakes, candies, and frozen desserts, together with the serving of simple dinners will constitute the practice work. The previous work in Domestic Science is a prerequisite to this course. Professor Haggart.

Required of Juniors in Household Economics course, 2 hours plus 2 hours practice, first semester.

Dietetics. 7. This course includes a study of the nutritive and dietetic values of food, hygienic combinations, uses of food in the body, and the planning of balanced dietaries. The practice work will include the cooking of more complicated dishes, together with the serving of breakfasts, luncheons, dinners, and teas. Professor Haggart.

Required of Juniors in Household Economics course, second semester, 2 hours plus 6 hours practice.

Dietary Studies. 8. This course will include a study of foods adapted to the age, occupation, and physical condition of the consumer. The relation of certain foods to particular diseases will be taught and invalid cookery will form a large part of the practice work. Particular attention will be given to diets suitable for growing children and the proper feeding of infants. Professor Haggart.

Required of all Seniors in Household Economics course, 2 hours plus 2 hours practice, first semester.

Home Nursing. 9. This course covers the home care of the sick, furnishing and care of a sick room, with the use of antiseptics and disinfectants. Lectures on emergencies and first aid to the injured are given by a physician. Professor Haggart.

Required of all Seniors in Household Economics course, 2 hours, first semester.

Home Architecture and Sanitation. 10. The situation, surroundings and construction of the house: heating, ventilation, water supply and drainage. Professor Haggart.

Required of all Seniors in Household Economics course, 5 hours, during first half of second semester.

Household Management. 14. This course deals with the organization of the household, expenditure of the income, and general management of the home. Professor Haggart.

Required of all Seniors in Household Economics course, 5 hours, during second half of second semester.

Equipment

The Department of Household Economics moved during the past college year into its new quarters in the semi-basement of Hadley Hall. The suite of eight rooms is well lighted and most convenient. The office of the department is suitably furnished and contains the departmental library of the best and latest books, magazines and bulletins relating to the household sciences. The dining room and model kitchen are well furnished for serving of different meals in connection with work in cooking. The laboratory has accomodations for fourteen students. The sewing work is accomodated by three rooms, two of which are furnished with sewing machines tables of convenient height, and all other modern equipment. The fitting room contains lockers for the use of students. In connection with the department is a rest room for the girls, where comfortable chairs and couch may be found. In all, the department is excellently equipped with the best and latest of everything necessary in the teaching of Household Economics.

DEPARTMENT OF ENGLISH

Professor Macarthur	Associate Professor Daniels
Miss Lewis	Mr. Wilcox

The courses in English aim at accomplishing two principal objects. The first is that of securing ease, clearness, and directness of expression; the second, that of promotion of culture. A fact which is gaining an ever wider recognition today is that no matter how well trained technically men or women may be, they will not be able to make satisfactory progress along professional lines unless they are capable of conveying their ideas to their fellow workers, and of keeping in touch with the advances made in their professions. Hence it follows that throughout the course much emphasis is placed upon rhetoric; and not only upon its theoretical, but especially upon its practical side. Facility in writing is not to be acquired so much by the study of a book of rules as by the actual practice of writing. For this reason the courses in rhetoric require the continuous composition of themes which are carefully criticised and returned to the student for re-writing or revival, as the case may demand.

The educated world of the present time has a much broader conception of the word profession than that of twenty-five years ago. Engineering—mechanical, civil, or electrical—domestic science, and business are now recognized as professions, and very properly so. But while the world is granting such a recognition and according a corresponding social status, it has a right to expect from the new professions that broad and general culture which was distinctive of the old. The study of literature has been admitted to be one of the foremost influences making for culture, and on this account it receives a deservedly prominent position in the work of the department.

Moreover, for the further development of these same objects, work in Public Speaking and Expression is provided.

Such work has proved to be a most valuable adjunct to the study of English in all its branches.

A thorough course in bibliography and the use of standard books of reference is an especially valuable feature of the course offered by this department.

No student, whose knowledge of spelling and grammar is deficient, will be admitted to college classes in English; and the department reserves to itself the right to examine in English, should it deem it advisable, any student entering college classes in that subject.

ENGLISH OF THE PREPARATORY AND INDUSTRIAL COURSES

Elementary English Composition. A & B. The course includes, in addition to the work named, one hour a week in Expression throughout the year. Professor Macarthur and Mr. Wilcox.

Required of all students of the First Year Preparatory, throughout the year, 5 hours.

American Literature. C & D. The course consists of the reading and study of masterpieces of American literature, with compositions based upon them. There will also be one hour a week in Expression throughout the year. Associate Professor Daniels and Mr. Wilcox.

Required of all students in the Second Year Preparatory, first and second semesters, 5 hours.

Advanced Grammar. E & F. The work embraces an advanced text book in English Grammar, Gayley's Classic Myths, and one hour a week throughout the year in Expression. Professor Macarthur and Mr. Wilcox.

Required of all students in the Third Year Preparatory, first and second semester, 5 hours.

English Literature. G & H. The study of a text book in English literature, accompanied by the study and reading of the best known masterpieces. The work also includes one hour a week in Expression throughout the year. Professor Macarthur and Mr. Wilcox.

Required of Fourth Year students in the College Preparatory and Business courses, 5 hours, first and second semesters, and students in the Domestic Science course, one semester, 5 hours.

COLLEGE COURSES IN ENGLISH

Rhetoric. 1 & 2. This course consists of the study of a text book in Rhetoric accompanied by written compositions throughout the year, especial attention being paid to practical features such as letter-writing. One hour a week throughout the first semester is devoted to Bibliography, and one hour a week throughout the year to Public Speaking. Associate Professor Daniels and Mr. Wilcox.

Required of Freshmen in the General Science and Household Economics courses; also of Freshmen who have graduated from the Industrial courses in Agriculture and Mechanics, first and second semesters, 5 hours.

Debating. 3 & 4. The principles of debating, accompanied by practical work. Mr. Wilcox.

Required of Juniors in the General Science, Agricultural, Engineering, and Household Economics courses, first and second semesters, 2 hours.

English Literature. 5 & 6. The history and development of English literature. A reading course, accompanied by lectures. The course includes one hour a week in Public Speaking. Professor Macarthur and Mr. Wilcox.

Elective for all who have completed English 1 & 2, first and second semesters, 5 hours.

Advanced Rhetoric. 7 & 8. A theme course, with collateral study of models of English prose. Professor Macarthur.

Elective for General Science and Household Economic Seniors, first and second semesters, 2 hours.

Advanced Public Speaking. 9 & 10. Special work in Expression, Reading, and Public Speaking. Mr. Wilcox.

Elective to those who have completed English 1 and 2, 3 hours, first and second semesters.

Equipment

The general library of the college offers exceptional advantages to the students of this department. This library is not only the finest in this part of the Southwest, but, from the standpoint of the English student it can hold its own with many found in well known institutions in the East. It contains all the English masterpieces, and has a particularly large representation of American literature. In addition to this, its accessions include copies of all contemporary works which receive the favorable notice of the press. The most important literary magazines come regularly to it, and in this way the students have every opportunity of keeping themselves informed as to the most recent movements in the literary world.

The new and spacious auditorium in the recently completed Hadley Hall gives the students in expression and public speaking an admirable place for practice. The stage has been equipped with all the appliances necessary for staging a modern play.

DEPARTMENT OF HISTORY

PROFESSOR VAUGHAN

Students of every branch of human knowledge have come to realize that the highest success is not possible for him who knows his present environment only. They are, therefore, turning to the past more earnestly to-day than ever before, not for its own sake, but for the light it throws on the present.

Although history deals primarily with the past, it is the key which unlocks the secrets of present problems. Just as the life of an individual is explained by his past, so the life of nations can be seen aright only in the light of their history. Government and social life cannot be understood by the process of analysis alone. The significance of institutions, those persistent habits of nations, can be reached only through a knowledge of their origin and gradual development. And in making these hidden treasures of the past the common property of the present, history renders an invaluable service to every man who is seriously interested in any field of human endeavor, or who would read intelligently and appreciatively the news columns in his daily paper.

General History. A. A rapid survey of the chief nations of the world from the dawn of recorded history in the Tigris, Euphrates, and Nile valleys until the present time. Special emphasis is placed on those political, social, religious, and economic movements and institutions which throw light on the problems of modern life. Professor Vaughan.

Required of all Third Year Preparatory students and of all students in the Third Year of Industrial courses, first semester, 5 hours.

General History. B. A continuation of the preceding. Professor Vaughan.

Required of all Third Year Preparatory students and of all students in the Third Year of Industrial courses, second semester, 5 hours.

United States History. C. After a brief summary of American colonial history, the class makes an intensive study of the United States from the Revolution to the administration of President Taft. The political, social, and economic growth of the country during the last half-century is studied carefully for the light it throws on American life today. Professor Vaughan.

Required of Fourth Year Preparatory students and of Fourth Year students in Industrial courses in Domestic Science and Business, first semester, 5 hours.

United States History and Civics. D. A continuation of the preceding course. The last quarter will be devoted to a study of the civil government of the United States and of New Mexico. Professor Vaughan.

Required of Fourth Year Preparatory students, second semester. 5 hours.

Modern European History. 1. A comprehensive study of the history of Europe from the Renaissance to the beginning of the twentieth century. Careful attention is given to the great periods and movements of modern history: the Renaissance, the Reformation, the French Revolution and the Era of Napoleon, the organization of the modern states of Europe, the growth of constitutional government, the rapid advance of science, and the development of modern economic thought. Professor Vaughan.

Required of all Juniors except Engineers, first semester, 3 hours.

Modern European History. 2. A continuation of the preceeding. Professor Vaughan.

Required of all Juniors except Engineers, second semester, 3 hours.

Equipment

The department of history is reasonably well equipped. It posesses MacCoun's Ancient and Classical Charts, MacCoun's Mediaeval and Modern Charts, Johnston's Imperial Chart of the World, Johnston's Imperial Map of Europe, Appleton's Universal Cyclopedia and Atlas (12 volumes), Larned's History for Ready Reference (5 volumes), and other works. The general library of the college contains a large collection of standard historical works, and also has in its possession a considerable amount of material which will serve the purpose of original investigation.

DFPARTMENT OF MATHEMATICS AND ASTRONOMY

PROFESSOR HAGERTY ASSISTANT PROFESSOR BURKEY

Since the work of this institution is largely technical in its character, considerable attention is given to the utility phase of mathematical subjects, but the culture phase is by no means lost sight of. The mathematical sujects have a bread-and-butter value because they form the necessary basis for further instruction in the engineering courses, and they also have a culture value for students in all courses because they train one to think closely, logically, and accurately.

Astronomy is taught almost wholely for its culture value, since to a far greater extent than any other science it enlarges the mind and gives a true conception of the relation of man to his physical enviroment.

SECONDARY MATHEMATICS

Elementary Algebra. A & B. This course for beginners consists of five exercises a week during both semesters. Its connection with arithmetic is constantly before the student, and the solution of an unusally large number of practical problems constitutes the main part of the work, since the purely theoretical side of the subject receives full consideration later in the advanced algebra. The text-book is Slaught and Lennes' High School Algebra. (Elementary Course.) Assistant Professor Burkey.

Required of all First Year students in all Preparatory and Industrial courses.

Plane Geometry. C & D. In this course of five exercises a week during the first and second semesters Wentworth's Plane Geometry is completed, including more than two hundred of the original exercises. Assistant Professor Burkey.

Required of all Second Year students in all Preparatory and Industrial courses.

Advanced Algebra. E. This course of five exercises per week during the first semester consists of a complete review of the First Year course in algebra, and also the following topics: involution, evolution, indeterminate equations, quadratic equations, radicals, ratio, proportion, variation, and theory of exponents including logarithms. Text book High School Algebra (Advanced Course) by Slaught and Lennes. Professor Hagerty.

Required of all Third Year students in the College Preparatory and Mechanics courses.

Higher Arithmetic. F. This course of five exercises a week during the first half of the second semester consists of a general review, and a consideration of topics not previously studied. The applied problems are of a practical nature, referring largely to questions arising in the laboratory and in ordinary commercial life. The text book used is Beman and Smith's Higher Arithmetic. Professor Hagerty.

Required of all Third Year students in all the Preparatory and Industrial courses except those in the Business course.

Solid Geometry. G. In this course of five exercises a week during the latter half of the second semester Wentworth's Solid Geometry is completed including a number of the original exercises. Professor Hagerty.

Required of all Third Year students in the Mechanical and College Preparatory courses.

COLLEGE MATHEMATICS

Trigonometry. 1. This course of five exercises a week during the first semester is fully illustrated by practical problems. Professor Hagerty.

Required of Freshmen in the General Science and Engineering courses.

College Algebra. 2. This course of five exercises a week during the second semester covers the following subjects: progressions, undetermined coefficients, the binomial theorem for all rational exponents, permutations and combinations,

BOY'S DORMITORY

GIRL'S DORMITORY

variables and limits, series, and the elements of the theory of equations. Professor Hagerty.

Required of Freshmen in the General Science and Engineering courses.

Analytic Geometry. 3. In this course of five exercises a week during the first twelve weeks of the first semester a detailed study of the following topics is made: straight line, circle, transformation of coordinates, parabola, ellipse, hyperbola, general equations of the second degree, and a few of the higher plane curves. Both rectangular and polar coordinates are used. Professor Hagerty.

Required of Sophomores in the Engineering courses.

Differential and Integral Calculus. 4. The topics treated in this course of five exercises a week during the last six weeks of the first semester and the whole of the second semester are those usually taken up in accordance with well established usage. Many practical problems in analytic geometry and mechanics are solved by the student in order to fix the principles in his mind and to maintain his interest. Professor Hagerty.

Required of Sophomores in the Engineering courses.

Descriptive Geometry. 5. In this subject the principles of orthographic projection, development of lines and surfaces, etc. are fully discussed in the class-room; and a great variety of problems, illustrating both general and special cases, are solved and constructed in the drafting room. Assistant Professor Burkey.

Required of all Sophomore Engineers, second semester, 3 hours.

General Astronomy. 6. In this course of three hours a week during the second semester are studied not only astronomical facts and principles, but also the methods by which the facts have been ascertained. Night observations with the telescope constitute an important part of the work. Professor Hagerty.

Required of Seniors in the Engineering and Agricultural courses.

Equipment

This department has a portable equatorial telescope with 4½ inch objective and magnifying powers ranging from 50 to 300, a Bausch and Lomb-Zeiss stereo-binocular magnifying 6½ diameters, planetarium, two star lanterns with slides, star atlases, planisphere, 24-inch slated globe, trigonometer, a set of stereoscopic views of the figures for the theorems in solid geometry, Kennedy's dissected geometrical blocks, a Thatcher's Calculating instrument, and aneroid barometer; two surveyor's compasses, four transits, one of which has a gradienter and three have solar attachments, three levels, a plane table, Webb's stadia slide rule, two hand levels, protractors, optical square, planimeter, pantograph, chains, tapes, leveling rods, ranging poles, pins, drawing boards, drawing tables, etc.

Students will be held responsible for all equipment used by them, and any loss or breakage must be made good to the college.

The department library contains many valuable books of reference, and receives several periodicals.

DEPARTMENT OF MECHANICAL AND ELECTRICAL ENGINEERING

Professor Sage — Assistant Professor Schaphorst

Two courses are offered in this department: Mechanical Engineering, a four year course leading to the degree of Bachelor of Science in Mechanical Engineering; Electrical Engineering, leading to the degree of Bachelor of Science in Electrical Engineering. The two courses are very closely allied and are therefore identical for the first two years. They differentiate at the beginning of the junior year, each class pursuing separately those subjects pertaining to its particular branch, while some studies remain common.

MECHANICAL ENGINEERING

Instruction in this course is given by lectures, recitations, and practice, so combined as to constitute a symmetrical course of study. The endeavor is to provide the student with a broad foundation of general and theoretical knowledge, together with a liberal amount of practice in the line of his chosen profession.

Much time is necessarily devoted to higher mathematics and to technical subjects; yet certain fundamental studies, necessary to a broad and liberal education, such as physics, chemistry, languages, literature, and political economy are provided for.

The student is given a thorough training in the theoretical branches underlying the science of machines, together with a clear understanding of the practical condition of mechanical devices.

Shop practice offers practical illustration of the precepts taught in the class-room, and is a most essential part of the Mechanical Engineering Course.

The practice is supplemented by lectures on the care and use of the various tools and materials used in the engineering profession.

Mechanical Drawing. 1. 2. 3. Instruction in the use and care of drafting instruments; exercises in geometrical construction, plane projections, shading, and coloring; followed by detail and assembled working drawings of machinery with tracings and blue prints therefrom. Assistant Professor Schaphorst.

> Required of all Freshmen Engineers, first semester, 4 hours practice, second semester, 8 hours practice, and Sophomores second semester, 4 hours practice.

Machine Design. 4. 5. Mechanical drawing is merged into Machine Design, of which it forms an important part, and affords constant opportunity for further practice in making drawings of standard types of machinery. The work in this subject consists chiefly in the design of the elements of machines, such as bolts, rivets, riveted joints, journals and bearings, pulleys, gears, cams, etc., also the complete design of a steam boiler. Assistant Professor Schaphorst.

> Required of Junior Mechanical and Electrical Engineers, second semester, 6 hours practice; and Senior Mechanical Engineers, first semester, 4 hours practice.

Elements of Mechanics. 7. In this subject the general laws of statics and dynamics are studied with reference to solids, liquids and gases, and the fundamental principles are applied to the solution of a wide range of problems. Assistant Professor Schaphorst.

> Required of all Junior Engineers, first semester, 3 hours.

Mechanism. 8. Under this head are studied the principles underlying the acting of the elementary combinations of which all machines are composed; the communication of motion by gear wheels, belts, cams, screws, link work, etc. Assistant Professor Schaphorst.

> Required of all Sophomore Engineers, first semester, 2 hours.

Graphic Statics. 9. This subject treats of the solution of engineering problems by means of drafting room methods, and the design of roof and bridge trusses by simple but accurate methods. Professor Sage.

> Required of all Junior Engineers, first semester, 4 hours practice·

Steam Boilers and Engines. 10. Under this head the principles underlying the construction of the various forms of steam boilers are studied. Attention is given to the various details in their design or operation, such as the size of flues, thickness of plates, styles of riveting, bracing, the amount of grate and heating surfaces, etc., as well as to various attachments. The student makes a study of the general principles of the steam engine and of the various types in common use, and investigates the many problems relating to their structure and efficiency. Assistant Professor Schaphorst.

Required of Junior Mechanical and Electrical Engineers, second semester, 3 hours.

Applied Mechanics. 11. The work of the first term in this subject embraces a study of the laws of equilibrium, motion, work, and energy, as applied to particles and rigid bodies; also a study of the center of gravity and the moment of inertia. The stresses in the steam engine are investigated and the subject of friction is carefully considered. Assistant Professor Schaphorst.

Required of all Junior Engineers, second semester, 5 hours.

Applied Mechanics. 12. The second semester work in the subject considers the conditions of stress, strain, and elasticity of materials. The theory of bending moments of beams and columns, and torsion of shafts is thoroughly studied. This course also includes a study of the theory of reinforced concrete. Assistant Professor Schaphorst.

Required of all Senior Engineers, first semester, 3 hours.

Engineering Power Plants. 13. The work in this subject consists of the investigation of the sources of power and a comparison of the relative merits of each. Most economical arrangements are considered. The application of electricity to power, lighting, street railway work, and mining work is also considered. Professor Sage.

Required of Senior Mechanical and Electrical Engineers, second semester, 3 hours.

Thermodynamics. 14. This subject treats of the solution of problems involving the action of heat as applied to steam engines, gas engines, and other thermal motors. The use of compressed air and refrigerating machines is also thoroughly discussed, so that the student may become familiar with present day practice. Assistant Professor Schaphorst.

Required of Senior Mechanical and Electrical Engineers, second semester, 2 hours.

Engineering Structures. 15. This subject embraces a study of the design and construction of foundations and superstructures, the selection of materials, superintendence, specifications, etc. Professor Sage.

Required of all Senior Mechanical and Electrical Engineers, first semester, 3 hours, second semester, 2 hours.

Engineering Laboratory. 16. In this subject tests are made with the engine and boiler plant, both with and without the electric plant in connection. Tests are also made on gasolene engines, air compressor, determination of moisture in steam, etc. Steam gauges are accurately tested, and the student is given a careful training in engineering practice. Professor Sage.

Required of all Seniors Engineers, first semester, 2 hours practice.

Mechanical Engineering Laboratory. 17. Continuation of course 16. Professor Sage.

Required of Senior Mechanical Engineers, second semester, 2 hours practice.

Woodwork. 18a. Bench work in wood; planing, gauging, chiseling, boring, dovetailing, fitting, and joinery; construction, care and use of tools. Lectures and practice. Mr. ———.

Forging. 18b. Care of fire heating, drawing out, bending up, setting, swaging, welding, tempering, and annealing, tool making and dressing. Mr.———.

Required of all Freshmen Engineers, Wood-work, second nine weeks, first semester. Forging first nine weeks, second semester, 10 hours practice. Forging is also required of Second Year Mechanics.

Pattern-making and Wood-turning. 19. Construction of solid and built-up patterns. Core-boxes for the moulding of simple machine parts. Wood turning exercises in turning between centers, face plate and chuck work, ornamental turning, finishing, and polishing. Mr.———.

Required of all Freshman Engineers, and Second Year Mechanics, first semester, 10 hours practice.

Machine Shop. 20. Laying out work. Chipping, filing, fitting, scraping, drilling, and tapping work with machine tools. Assistant Professor Schaphorst.

Required of all Freshman engineers, second semester, last nine weeks, 10 hours practice; and of Third Year Mechanics, second semester, 10 hours practice.

Machine Shop. 21. Cutting speed of tools and angle of cutting edge, screw cutting and finishing. Assistant Professor Schaphorst.

Required of Junior Mechanical and Electrical Engineers, first semester, first nine weeks, 10 hours practice.

Machine Shop. 22. Advanced machine shop practice; production of finished machine elements. Assistant Professor Schaphorst.

Required of Junior Mechanical and Electrical Engineers, last nine weeks of the second semester, and of Fourth Year Mechanics, second semester, 10 hours practice.

Foundry Practice. 23. Mixing and tempering of moulding and core sands; moulding in green and dry sand; making and drying of cores. Mr.———.

Required of Junior Mechanical and Electrical Engineers, second semester, last nine weeks, 10 hours practice.

Economics of Engineering. 24. An economic study of the development of an engineering project. Contracts and specifications, factory organization and administration systems of cost keeping, details of standardization, duplication and interchangeability. Professor Sage.

Required of Senior Mechanical and Electrical Engineers, second semester, 1 hour.

Materials of Construction. 25. A study of the properties of structural materials with the aid of testing apparatus, including the common tests of materials in tension, compression, and bending. Properties and specifications of cement, concrete, and reinforced concrete. Assistant Professor Schaphorst.

Required of all Senior Engineers, second semester, one hour lecture, 2 hours practice.

Gas and Oil Engines. 26. A study of the theory, design and operation of the different types and cycles of gas and oil engines. Assistant Professor Schaphorst.

Required of Senior Mechanical Engineers, second semester, 2 hours.

Seminar. 27. Review of current engineering periodicals, abstracts and reports of papers. Professor Sage.

Required of all Senior Engineers, first and second semesters, 2 hours.

Engine and Dynamo Practice. 28. Operation and care of steam, oil, and gasolene engines, boilers and electrical machines; valve setting and indicator practice. Professor Sage.

Required of Fourth Year Mechanics, first semester, 9 weeks, 10 hours practice.

Free-Hand Drawing. 29. Outline drawing from the black board, principles of perspective, relative proportion and the study of the values of light and shade are developed. The advanced work is given with particular reference to the course pursued by the student. Mr. ———.

Required of all First Year Industrial and Preparatory students, first and second semesters, 5 hours practice.

Manual Training. 30. This course is arranged as a general culture subject. The course will consist of drawing, bench work in wood, wood carving, and turning, together with lectures on materials and the use of tools. Mr. ———.

Required of all First Year College Preparatory students, throughout the year, 5 hours practice.

Carpentry. 31. Bench work in wood; sawing, planing, gauging, chiseling, boring etc., construction, care and use of tools. Lectures and practice.

Required of First Year Mechanics, 5 hours practice throughout the year.

Concrete. 32. Because of the very important place concrete has taken in nearly all phases of construction work, this course has been designed to equip men with a good practical knowledge of its properties and uses. Lectures will be given on the manufacture of cement, its selection and storage; the water proofing of concrete, and the adaptability of concrete to structures. It will embrace a large amount of practical work in making common cement and sand tests and tests of various mixtures; design and construction of ornamental work, tiles, posts, sidewalks, beams, and columns and forms for same. Current literature on the subject will be discussed from time to time, and a study of concrete mixing machinery and block machines will be an important part of the course. Professor Sage.

Required of all Fourth Year Mechanics, last nine weeks, second semester, 10 hours practice.

Building Construction. 33. A course embodying lectures on materials used in building construction and conditions governing their use; methods of construction; model work in jointing and framing roofs and buildings; a study of mill construction, woodworking machinery and the steel square. Assistant Professor Schaphorst.

Required of all Third Year Mechanics, first nine weeks, second semester, 5 hours.

Contracting and Estimating. 34. This course is arranged for those students who expect to use the technical knowledge they have gained in general contracting, and will consist of problems in estimating cost of material and labor in a complete engineering project and the methods of contracting for same. Professor Sage.

Required of all Fourth Year Mechanics, second semester, last nine weeks, 5 hours.

ELECTRICAL ENGINEERING

This course is arranged to supply the demand for men who have a practical knowledge of electricity, as well as a thorough knowledge of the principles and laws governing the forces with which they have to deal. For the first two years the course is identical with the Mechanical Engineering course, but branches out separately during the third year. This is for the reason that the two courses must through necessity run nearly parallel, as a well equipped electrical engineer must also be a mechanical engineer, and must have some training in the principles of steam and hydraulics.

To meet the demands of the technical work in this rapidly advancing branch nothing but the most thorough course in the fundamental facts and principles of the science of electricity can prove satisfactory. Hence a thorough drill by means of text-books and an extended series of experiments in the laboratory with exact instruments form the necessary preparation for the latter work. Particular attention is given to the designing of electrical machinery and to the investigation of advanced problems in electricity.

Elements of Electrical Engineering. 35. This subject treats of the elementary points of Electrical Engineering, giving the student a firm foundation for his future work. Current electricity, potential, resistance, quantity, induction, hysteresis, elementary principles of the dynamo and motor, etc. are treated in detail. Prof. Sage.

Required of Junior Electrical and Senior Mechanical and Civil Engineers, first semester, 3 hours.

Dynamo-Electrical Machinery. 36. The theory and construction of continuous current generators and motors. Professor Sage.

Required of Senior Electrical Engineers, first semester, 3 hours.

Alternating Currents. 37. Includes a study of alternating currents and alternating current machinery by mathematical and graphical methods; construction, regulation, and operation of single and polyphase generators and motors, transformers, and rotary converters. Professor Sage.

Required of Senior Electrical Engineers, second semester, 2 hours.

Dynamo Design. 38. This subject considers the materials of construction and methods of armature winding, followed by the design of some form of dynamo together with the complete calculations for same. Professor Sage.

Required of Senior Electrical Engineers, first semester, 4 hours practice.

Electric Power Transmission. 39. The methods of economical distribution of electrical energy for light and power purposes; insurance rules and regulations; alternating current transmission of power; characteristics and properties of transmission lines; construction and protection; management; economics of design and regulation; single and polyphase systems; high-potential and long-distance applications. Professor Sage.

Required of Senior Electrical Engineers, second semester, 1 hour.

Electrical Engineering Laboratory. 40. Experimental study of characteristics and properties of direct and alternating current generators and motors, methods of testing, theory of instruments efficiency, regulation, etc., with complete reports. Professor Sage and Mr. ———.

Required of Senior Electrical Engineers, throughout the year, 2 hours practice.

Equipment

The department has two commodious buildings devoted to its work. One has rooms for a forge shop, foundry, and storage; the other contains two recitation rooms and a hall, an engine and boiler room, and rooms for wood work and machine work.

An excellent department library containing standard works pertaining to the engineering professions is accesible to students.

Mechanical and Electrical Laborator. The power equipment of the college consisting of the following engines, boilers, etc., affords opportunity for investigation by the students, on the subject of steam and steam engine practice:—one 40 horse-power tubular boiler, one 50 horse-power Hoppes feed water heater and purifier, one duplex steam pump, one 30 horse-power Weston automatic engine, one 8 horse-power

Shipman engine and boiler, one 13 horse-power Priestman oil engine, one 15 horse-power Witte gasolene engine, one air pump and reservoir. The equipment also includes indicators for steam and oil testing, one standard steam gauge tester, three plainmeters, a gas meter, two calorimeters, one tachometer, one Olsen testing machine of 60,000 lbs. capacity with full equipment for tension, compression, and transverse tests; one 9 K. W. direct current dynamo compound wound; one 7 K. W. direct current dynamo shunt wound; one 2 K. W. rotary converter for direct and alternating current work; one 3 K. W. single-phase alternator; one series wound D. C. generator; one 3-phase induction motor, and a complete terminal and switch board equipment as well as portable instruments for direct and alternating current investigations. The mechanical laboratory equipment has been increased by the addition of a complete amonia refrigerating plant, for illustrating the principles of thermodynamics and for thesis work.

The Machine Shop has one 16-inch x 6-foot tool room lathe with compound rest and taper attachment, one 14-inch x 8-foot standard engine lathe, one 12-inch x 5-foot standard engine lathe, one 13-inch standard engine lathe, one 24-inch x 24-inch x 6-foot planer, one 14-inch shaper, one 22-inch power drill-press, one sensitive drill, one gas pipe threading and cutting off machine, one power hacksaw, one improved double wheel emery grinder, as well as a large number and good assortment of drills, chucks, small tools, and machine attachments.

The Wood-working shop contains fourteen benches, six 10-inch lathes, one 18-inch x 10-foot lathe with over hanging face-plate capable of turning work up to 80 inches in diameter, one combination rip and cross-cut circular saw, one Fox trimmer, one large grindstone with Brown and Sharp frame, and a good supply of small tools and appliances.

In the forge shop are twelve forges of the latest down-draft model with improved underground arrangements for the blast and exhaust pipes, one forge being equipped with a hand blower. Each forge is fitted with a full set of hammers, tongs, swages, fuller, etc. An 18 inch hand-power drill press and a punching and shearing machine form a part of this equipment.

The foundry has a brass furnace, the usual small tools, and a number of flasks for moulding.

DEPARTMENT OF CIVIL AND IRRIGATION ENGINEERING

PROFESSOR FLEMING ASSISTANT PROFESSOR BURKEY
MR. STONEKING

In the arid West necessarily one of the most important problems before the civil engineer is that of the development, conservation and use of the limited water supply. In the course offered by this department, therefore, the study of irrigation and of water power problems receives particular emphasis, though railway surveying and problems of railway location and construction are quite thoroughly treated, the idea of the course as planned being to fit students for the lines of civil engineering work most common in the West. A sufficient number of other subjects are included, however, to give the student a fairly comprehensive view of the various branches of modern engineering and enough preparation is given in the fundamentals to enable him to take up engineering work of any character when supplemented after graduation by further study and observation in the special line of work followed.

Since civil engineering and other branches of engineering work overlap to some extent many of the subjects required for study by students in this department will be found listed under Mechanical Engineering.

Following is a brief synopsis of the subjects taught in the department of Civil and Irrigation Engineering.

Plane Surveying. The instruction in this subject is such as to render the students familiar with the principal instruments and methods used in plane surveying. Levels are run, surveys made, notes plotted, and areas computed. Students have practice in determining the true meridian and latitude, by observation of the north star and of the sun. Professor Hagerty.

Required of all Engineering Sophomores, 1st semester, and of Agricultural Sophomores the first 9 weeks, 1 hour and 4 hours practice.

Topographic Drawing. 2. This course is to be substituted for mechanical drawing by those Engineering students who at the beginning of the second semester of the sophomore year, contemplate taking the Civil Engineering course. It consists in the learning of topographic symbols, and practice in the plotting and lettering of maps. Assistant Professor Burkey.

Railway Surveying. 3. This course includes the theory and practice of laying out simple, compound, reversed, transition and vertical curves, and a complete survey (reconnaisance, preliminary, location, and cross-sectioning) of a line of such length as time will permit. Assistant Professor Burkey.

Required of all Civil Engineering Juniors, first semester, 3 hours and 4 hours practice.

Advanced Land Surveying. 4. This course supplements Plane Surveying by affording work in the calculation of the more complicated problems of land areas, the parting off of land, the division of tracts of land into city blocks and subdivision into lots and the establishment of street grades. Particular attention is paid to government land surveying. Assistant Professor Burkey.

Required of all Civil Engineering Juniors, first semester, 2 hours and 2 hours practice.

Topographical Surveying. 5. In this work students make surveys by means of the stadia, plane table, and the rectangular coordinate method. As soon as all the field data are obtained a map of each survey is made. Assistant Professor Burkey.

Required of all Civil Engineering Juniors, second semester, 1 hour plus 8 hours practice.

Railway Construction. 6. This course consists of a paper location according to notes previously obtained in surveying courses, the drawing of profiles, calculation of earthwork, methods of figuring haul and other features entering into the economics of railway location and construction. Assistant Professor Burkey.

Required of all Civil Engineering Juniors, second semester, 2 hours and 2 hours practice.

Irrigation Practice. 7. Hitherto such studies of irrigation as have been taught in the schools have dealt with the subject almost entirely from the engineer's standpoint and the disposal of the water after leaving the reservoir or canal has been considered a matter of but small concern or at least of so little importance as to require nothing but a brief and and more or less superficial treatment. Irrigation development has, however, so far progressed over the larger part of the arid West that haphazard and loose irrigation practice is no longer considered profitable. Water is reaching an economic value sufficient to justify considerable care in its distribution and use and the adoption of scientific methods as a conservative business policy is gaining the approval of progressive agriculturists and irrigation companies throughout the West. Men are therefore in demand who have the knowledge of how most successfully and economically to use the water which the engineer has made available by his canals and reservoirs. These men must be acquainted with the most economical methods of conveying the water to the point of use and they must know the best time and manner to apply it. While such requirements border somewhat upon the qualifications of the irrigation engineer, they are evidently more closely related to those of the agriculturist. It has, therefore, been deemed advisable to include a set of studies in the Agricultural course which would supply such information on irrigation as is required by the skilled irrigation farmer and which would aid the agricultural student in preparing himself for the work indicated. Such a course should be conducted both in the class room and field and the work is, therefore, divided as follows:

Class Room. One hour per week during the second semester will be devoted to an elementary discussion of the laws governing flow of water as applied to its measurement by weirs, rating flumes, etc.; the estimation of the amount of water required by the several crops as modified by various local and climatic conditions, and some reference to related questions of plant growth and the movement and amount of soil mois-

ELECTRICAL MACHINERY
WOOD SHOP
MACHINE SHOP

ture; the laying out and construction of laterals for the conveyance of water to the farm and the various methods of distribution of this water with a discussion of their relative advantages and applicability to different soils, crops, and topography; a discussion of the methods of conservation of soil moisture and of irrigation practice in various localities which have resulted in increasing the duty of water; a brief treatment of the methods of developing and utilizing individual water supplies (as by pumping from the underground flow) from the standpoint of the equipment advisable, its cost, and the relation of various expenses incident to operation; and, finally, a brief study of drainage as related to irrigation, discussing the causes leading to the necessity of drainage in arid countries and the means employed for ameliorating the condition of swampy and alkaline land.

Field. The equivalent of two hours per week, in measuring the discharge of actual canals and laterals by weir and current meter methods, and of laying out a lateral and distribution system, a survey being made and studied to determine the most favorable method of procedure. Professor Fleming.

Required of Agricultural Juniors, second semester, 2 hours plus 4 hours practice.

Hydraulics. 8. After a brief discussion of the subject of hydrostatics in connection with its bearing on the construction of dams, headgates and other structures subjected to water pressure, the phenomena of the flow of water under various conditions are considered in detail, water measurements by orifices, weirs, piezometers, and current meter being described, especial attention being directed to the empirical nature of hydraulic formulae and to the conditions necessary to be observed in their use. The college is well provided with current meters and weirs and unusual opportunities are available for hydraulic work on the canals in the vicinity, or any of the three large irrigation pumping plants which are now in operation on the college grounds. Professor Fleming.

Required of all Senior Engineers, first semester, 3 hours.

Irrigation Engineering. After a preliminary discussion of the methods by which plants grow and feed and of the role played by water in the vital processes of the plant, the student is introduced to the study of what has come to be meant by the "duty of water;" all the recent data on that subject are used, and the bearing upon estimates of the amount of water needed by irrigated districts is shown. Following this comes a discussion of rainfall and runoff, particular attention being paid to the intensities of storms as affecting reservoir design, especially in the Southwest.

Then follows a study of the design of canals and ditches, dams, reservoirs, wasteways, flumes, inverted siphons, and other special types of structures, existing examples being explained and illustrated. Pumping plants are considered with reference to the type of machinery to use for special conditions, the economics of pumping for irrigation being briefly taken up. The irrigation laws of the West are explained in so far as they relate to the acquirement of water rights and to the legal restrictions surrounding the construction of irrigation works. The course consists of lectures supplemented by reference to Wilson's "Irrigation Engineering," Schuyler's "Reservoirs," and various reports and bulletins of the Office of Irrigation Investigations. Professor Fleming.

Required of Senior Civil Engineers, second semester, 3 hours.

Irrigation Field Work. 10. In connection with the work of the class room it is desirable to give some practice work in the field. To this end a topographic survey is carried on from which a reservoir and small distribution system is designed. Practice is also given in the use of the current meter on the canals in the vicinity. Professor Fleming and Assistant Professor Burkey.

Required of Senior Civil Engineers, second semester, 4 hours practice.

Bridge Design. 11. Considerable practice is first given in the solution by graphics of problems involving forces in equilibrium, after which problems are given involving the determination by graphics of moments and shears, this being followed by the design of some simple structures such as a plate girder, a steel viaduct, etc. Professor Fleming and Assistant Professor Burkey.

Required of Civil Engineers, second semester, 4 hours practice.

Equipment

The equipment of the department consists of four transits of various makes (including two solar attachments,) three Y levels, one plane table, one compass, four standard current meters of the electric type, hook gages, weirs, automatic depth recorders, and various miscellaneous instruments such as planimeters, hand levels, tapes, chains, rods and drawing instruments.

DEPARTMENT OF ECONOMICS

PRESIDENT GARRISON PROFESSOR LAIN

This department includes certain courses which are required of all students and others which are required only of students in the courses in Business and Commerce. The former are broader in their scope; the latter are more closely technical.

Elementary Economics. A. The purpose of this course is to give the student a knowledge of those human relations which have to do primarily with wealth, its production and distribution. The usual topics included in political economy will be considered, but in addition and in connection with them those problems which arise from the relation of man to man in organized society. Economic questions become political questions and so lead to problems in the duties of citizenship. They also lead to problems in sociology and in ethics. Starting therefore with a consideration of society as an organization for the production and distribution of wealth, the course will include also much material which might be classed under sociology, politics and ethics. The manner of treatment will be simple, concrete and practical. President Garrison.

Required of all students in the Fourth Year of all Industrial course, first semester, 5 hours.

Elementary Economics. B. A continuation of the preceding. President Garrison.

Required of all students in the Fourth Year of all Industrial courses, second semester, 5 hours.

Economics. 1. A full year, with daily recitations, is devoted to the study of the principles of economics and their application in the conditions and problems of the United States at the present time, After a general survey of the principles governing the production and distribution of wealth, special attention will be given to those economic problems which are most closely connected with politics and government, and to those aspects of the subject which have to do with the duties of citizenship. An effort will be made to acquaint the student sufficiently with actual economic and industrial conditions in the United States, and particularly in the West, so that he may be an intelligent student of public affairs and a useful participant in them. President Garrison.

Required of Juniors in all College courses, first semester, 5 hours.

Economics. 2. A continuation of the preceding course. During the second semester special attention will be given to the economic and industrial history of the United States including a consideration of the development of monetary and tariff systems, the westward movement of population and its economic significance, the development of transportation, the growth of corporations and monopolies, the labor problem, the recent developments in the economics of agriculture. President Garrison.

Required of Juniors in all College courses, second semester, 5 hours.

Money, Credit and Banking. 3. The work of this course will be divided into three divisions: (a) a study of the principles of money, credit and banking: (b) a study of the exemplification of these principles in the monetary and banking history of different countries; (c) a study of our present currency system and a course in practical banking with special reference to the United States. Open only to those who have had Economics 1 and 2, and Accountancy and Science of Accounts 2, 3, 4 and 5. Professor Lain.

Required of Seniors in the Course in Commerce, second semester, 5 hours.

DEPARTMENT OF PSYCHOLOGY AND PEDAGOGY

PROFESSOR VAUGHAN

The purpose of the courses in this department is twofold: first, general culture; second, preparation for teaching. The course in General Psychology which is offered to college seniors is a general culture course. It aims to give the student an intelligent understanding of the structure and functions of consciousness, to train him in clear thinking about immaterial things, and to develop in him a critical and understanding attitude toward his own mental processes. The courses in Elementary Psychology and Pedagogy are intended as a preparation for teaching. It is not to be understood that this institution professes to duplicate the work of the normal schools. Those who wish a complete course of professional training as teachers should go to a normal school to get it. But there are many who, after completing their college courses, become teachers in high schools or colleges, and these need not only knowledge of the subjects which they are to teach but also an understanding of the nature and workings of the human mind and a knowledge of the principles and practices of modern pedagogy. Others leave college to teach before the completion of the course, and it is better for these to get a single course throughout a year in elementary psychology and pedagogy than to rely upon what they can pick up in a two-weeks teachers' institute in the summer.

Elementary Psychology. 1. In this course will be taught in the simplest possible way the general plan of structure of the nervous system and the relation of the system to consciousness, the various types and elements of mental processes, sensation, perception, conception, memory, imagination, judgment, reasoning, feeling and willing. The aim will be thoroughly practical and the application of the principles of psychology to the art of teaching will be constantly kept in view. Professor Vaughan.

Elective for Preparatory and College students who have not had or are not taking Psychology 3. Should be taken only by those who expect to teach. First semester, 5 hours.

Pedagogy. 2. This will be a general course in the theory and practice of teaching and in school management. It will presuppose such a knowledge of psychology and of general principles as is given in the preceding course. It will attempt to deal with the actual conditions as they exist in the public schools of New Mexico and will aim to prepare teachers to meet those conditions. Attention will be given to the movement for the teaching of agriculture in the public schools. This course and the preceding together will fully cover the requirements in these subjects for the first grade county teacher's certificate, and those who have credit for these courses are exempt from examination in these subjects. Professor Vaughan.

Elective for Preparatory and College students who are preparing to teach, second semester, 5 hours.

General Psychology. 3. This course will cover the same ground as course 1 but in a more scientific manner suited to the ability of more advanced students and without special reference to the application of psychology to teaching. It is primarily intended for general culture and to enable the student to understand himself and his own mental processes. Professor Vaughan.

Required of Seniors in General Science, Household Economics, and Commerce courses. First semester, 5 hours.

DEPARTMENT OF LATIN AND MODERN LANGUAGES

PROFESSOR HOBLIT

In this department courses are offered in Latin, Spanish and German. Emphasis in each course in placed upon the practical. In Latin, grammar, study of roots, word formation and translation are emphasized; in Spanish, reading, writing and speaking; in German, reading and translation:

LATIN

The work in Latin is confined to the College Preparatory course. A three years' course is offered, the first year being required of all students preparing for college and of those taking the secondary Business course. The work of the second and third years is optional, Spanish being offered as an alternative.

Elements of Latin. 1. 2. In the first year's work the attention is directed mainly to the study of accidence and the elements of syntax, with constant drill upon the same. A limited vocabulary is acquired by means of easy exercises in reading, translation and composition. Professor Hoblit.

Throughout the year, 5 hours.

Latin Readings. 3. 4. The second year's work consists of careful reading of selections from Viri Romae, Nepos, Caesar's Gallic War and other sources, review of grammar, and exercises in Latin composition based upon the text. Professor Hoblit.

Throughout the year, 5 hours.

Orations of Cicero. 5. 6. Six orations are read. Stress is laid upon accuracy of interpretation, keeping in view the distinctive features of this type of literature. Studies in syntax, with Latin composition based upon the text. Professor Hoblit.

Throughout the year, 5 hours.

SPANISH

The work in Spanish is planned mainly to meet the requirements of those who seek a practical command of the language. In addition to practice in reading and translation, considerable time is given to writing from dictation, to speaking, and, in the more advanced work, to original composition. Two years' work is offered, primarily to students in the Preparatory Department, as an optional in place of the Latin of the second and third years to those preparing for college; as a required study to those taking the secondary Business course. Spanish may be taken by college students, but it will be given only half credit when elected by Juniors and Seniors.

Elements of Spanish. 1. 2. Grammar, drill upon forms, easy reading. Particular attention is given to pronunciation, writing from dictation, and simple conversation. Professor Hoblit.

Throughout the year, 5 hours.

Spanish Readings. 3. 4. Prose works, 400 to 500 pages of matter, selections from modern writers. Review of grammar, writing from dictation, reproductions from memory, original composition and speaking. Professor Hoblit.

Throughout the year, 5 hours.

GERMAN

The principal objects sought in the German courses are a thorough grounding in the structure of the language, ability to read and translate ordinary matter with facility, accuracy of pronunciation, and some fluency in ordinary conversation. Two years' work is offered, primarily to Freshmen and Sophomores. It may be elected by other College students.

Elements of German. 1. 2. Study of grammar, drill upon forms, easy reading and translation, writing from dictation, practice in pronunciation and simple conversation.

Throughout the year, 5 hours.

German Readings. 3. 4. About 400 pages of selected matter of moderate difficulty. Review of grammar, exercises in translation, practice in writing from dictation, reproductions from memory, speaking.

Throughout the year, 5 hours.

THE DEPARTMENT OF COMMERCE

Professor Lain

The purpose of this course is to supply facilities for the training of young men who desire to enter business careers, especially in banking or some branch of the public service, in which knowledge of business is essential. In order that a person may achieve the largest measure of success at the present time, he must not only have a college education, but a course of study adapted to his peculiar needs. The modern business man needs training of the highest order, combined with a knowledge of the mathematical, physical, and social sciences, and of their application to commerce and industry, and a thorough command of his mother tongue, together with at least one or two foreign languages.

It is not the purpose of this course to graduate young men equipped with all the technical knowledge needed for the performance of the many processes of industry and commerce. It is well understood that such knowledge must be acquired by actual experience in connection with business institutions. It is our purpose, however, to give our students such training and such knowledge of the workings of industrial organizations as will enable them to learn the technique of any concern in much less time than would otherwise be required.

Bookkeeping. A. B. C. D. During the first year the student is instructed in the elements of theoretical bookkeeping, both double and single entry. This class meets daily for two years. During the second year they take up the advanced work in various lines of business, including both wholesale and retail mercantile work, manufacturing and banking. In the first year the student is made familiar with the first principles of the science of bookkeeping. He is guided carefully until he can master the simpler forms of the day book, cash-book, and ledger. Frequent drills in journalizing and closing ledgers are given for class work. The student, in the advanced work, will be required to master all forms and sets of books in the various lines of business; such as partnership, stock companies, corporations, etc. Professor Lain.

Required of Second and Third Year students of the Business course, throughout the year, 5 hours.

Penmanship. A drill class in business penmanship will be conducted for the benefit of those taking the Industrial course in Business and all students taking either the first or second year's work will be expected to attend this class.

Required of First and Second Year students in the Business course, throughout the year, 2 hours practice.

Spelling. The students of the Industrial course in Business take the subject of spelling, three times per week with the class in stenography, during the third year, and are required to make an average of 90 per cent for the year. Professor Lain.

Required of Third Year students in the Business course and in all Stenography courses, throughout the year, 3 hours practice.

Typewriting. E. F. All students taking the fourth year of the Industrial course in Business will take typewriting one hour per day for the entire year. Professor Miller.

Required of Fourth Year students of the Business course, 5 hours practice throughout the year.

Commercial Geography. 1. The student takes up the study of the natural resources and productions of the earth; of the distribution of products; of routes of commerce and lines of transportation in general and to some extent in detail; and the subjects of domestic, colonial, and foreign markets and manufactures. Mr. ———.

Required of Freshmen of the course in Commerce, first semester, 5 hours.

Accountancy and Science of Accounts. 2. 3. 4. 5. These two subjects will take up cost accounting, industrial accounting, advanced accounting, auditing and shop management and cost keeping. Professor Lain.

Required of Sophomores and Juniors in the course in Commerce, throughout each year, 5 hours.

History of Commerce. 6. A general study of ancient mediæval and modern commerce, with special emphasis on the recent development of commerce. Open only to those who have had economics. Professor Lain.

Required of Seniors in the course in Commerce, first semester, 5 hours.

International Law. 8. The development of the law of nations, its nature, source and present status; the equality of states; the doctrine of intervention; the laws of war and peace; the arbitration movement. Open only to juniors and seniors. Professor Lain.

Required of Seniors in the course in Commerce, second semester, 5 hours.

Commercial Law. 7. The work covers the chief principles underlying the law of contracts in general, negotiable instruments, agency, partnership, corporations, sales, public service companies, insurance and real estate. Open only to juniors and seniors. Professor Lain.

Required of Seniors in the course in Commerce, first semester, 5 hours.

MILITARY SCIENCE AND TACTICS

MAJOR GEORGE

The primary object of this department is to furnish the country each year with a class of young men who are fitted to become efficient officers of volunteers in time of war. For this reason the department is fostered by the United States government, and is practically maintained by it without expense to the college.

The professor is an officer of the army detailed for this duty by the President of the United States, and the equipment—of the value of about five thousand dollars—is issued to the college by the War Department. It includes two pieces of artillery with their accompanying limbers, cadet rifles and bayonets, belts, cartridge-boxes, and a yearly allowance of ammunition for target practice.

The military course is required to be taken by all physically qualified male students of the college, preparatory or industrial courses, in regular or special classes, except juniors, seniors, and graduate students. In exceptional cases college students, in their sophomore year, who have pursued the military course satisfactorily for three years may be excused from the regular work of the course by a vote of the faculty.

The department offers the following comprehensive course of instruction:

Practical. Infantry drill regulations, through the school of the battalion in close and extended order. This includes the ceremonies of batalion parade, review and inspection, guard mounting, and escort of colors, marches, outposts, advance and rear guards, etc. Field service regulations. Manual of guard duty. Firing regulations for small arms, with target practice at ranges from one to six hundred yards.

Theoretical. This includes the portions of the above subjects covered by the practical instruction, and may be supplemented by lectures.

Aside from its benefit to the country in time of war, this course is of great and immediate value to the individual student. The drills and exercises are mild forms of physical training, giving an erect and graceful carriage and correcting the bad habits of body to which students are prone. But their chief value to the student lies in the mental and moral discipline they afford, for, by their practice, he acquires the habit of self-control, respect for authority, and the fitness to exercise it.

Uniform. Each student classified for the military course will be required to deposit with the Registrar at the time of registration the price of the adopted uniforms, $22.50. The uniforms are as follows: A dress uniform of cadet gray and a fatigue uniform consisting of olive drab cap and shirt, khaki breeches and puttee leggings. White Berlin gloves will be worn with the dress uniform. Cadets will require four pairs of gloves for the school year. These are washed with the weekly laundry. The gloves cost twenty cents a pair.

The uniform of the college may be worn by any male student in good standing. When worn it must be in a military manner, shall be complete, not combined with articles of civilian clothing, and in the case of students not active members of the Cadet Corps, it is not to be accompanied by any insignia of rank in the corps. But this prohibition shall not apply to special social or ceremonial occasions when it may be desired to show former membership and rank.

DEPARTMENT OF MUSIC

PROFESSOR WATKINS

This institution offers excellent facilities for the study of music. The work of the department includes classes in Theory and Practice of Music, a Military Band and Orchestra, a Choral Society, and private work in Piano and Voice.

Elementary Music. 1. This class, which meets twice a week throughout the year, makes a study of musical notation, sight singing, and the singing of part songs. No special preparation for this course is required. It is intended for those who know nothing of the theory of music.

Required of all First Year students in Preparatory and Industrial courses, first semester, 2 hours.

Elementary Music. 2. Continuation of the preceding course.

Required of all First Year Preparatory and Industrial course students, second semester, 2 hours.

Theory of Music. 3. All students of Piano and Voice who are candidates for the Certificate of Proficiency will be required to take this course in the Theory and Practice of Music. The course is open also to other college students and credit will be given for it in those courses in which electives are allowed. The aim is to learn to read music at sight, to quicken the appreciation of good music, to acquire some knowledge of musical history and literature, and to learn the elements of harmony and musical form. The following topics will be treated:

Study of Major Diatonic Scale, Practice of Intervals, Study of Rythm, The Minor Scale, Transition and Modulation, Harmony, Elements of Musical Form, History of Music.

For college students who have had the equivalent of the course in Elementary Music, first semester. (Number of hours per week to be arranged with instructor.)

Theory of Music. 4. Continuation of preceding. All students of Piano and Voice who are candidates for the Certifi-

SEWING ROOMS

THE DINING ROOM

SEWING ROOMS

cate of Proficiency will be required to take this course. The course is open also to other college students and credit will be given for it in courses in which electives are allowed.

For college students who have had the equivalent of the course in Elementary Music, second semester. (Number of hours per week to be arranged with instructor.)

Band. During the past year a Military Band of about twenty pieces has been organized in connection with the Cadet Battalion. Students who have the necessary musical ability are detailed for this work, which takes the place of regular military drill. Band practice is held on three days of the week at the drill hour and the band participates regularly in battalion formations. The college owns a full set of band instruments, which are loaned free of charge to members of the band.

Orchestra. An Orchestra of about twelve pieces meets twice a week for practice under the leadership of the Musical Director. The work of the Orchestra is entirely voluntary. Students who participate in it receive a great deal of excellent musical training without cost. The Orchestra frequently appears on public occasions.

Piano. Matthews' Standard Graded Course up to and including the Sixth Grade will be used for the course in Piano, supplemented by such additional studies as may be necessary for the musical and technical development of the student.

No definite time can be stated for the completion of this course, it depending largely on the ability of the student and the amount of work done before entering. In addition to the above, one year of work in the course in Theory and Practice of Music will be required of each candidate for the Certificate of Proficiency.

Third and Fourth Year courses will be offered to such students as may desire to pursue more advanced work.

Voice Culture and the Art of Singing. A course in Voice and Singing is offered leading to a Certificate of Proficiency. The time necessary to complete this course will depend on the ability of the student; two years or more will be spent in the course.

The work will include the study of breathing, voice placing, study of vowels, vocalization, solfegio, pronunciation, and the study of songs and arias from various sources.

One year of work in the course in Theory and Practice of Music will also be required of each candidate for a Certificate of Proficiency in this course.

Choral Society. A Choral Society composed of students and members of the faculty meets one evening each week throughout the year for choral practice. The greater part of the work of this society consists in the preparation of an oratorio or cantata, which is rendered at the close of the school year.

Students who are taking private lessons in Piano or Voice are allowed the free use of the college pianos for practice. The college owns six pianos. College credit will be given for advanced work in Music, subject to the recommendation of the Director of Music and the President of the college. In every case where college credit is desired application should be made at the beginning of the session.

The charge for private lessons in Piano or Voice, for one lesson per week, each semester is $18.00.

Students must enroll as for other studies, so that a record will be kept of the work they have entered. No lessons will be given until the student presents a receipt for the term from the Registrar. No allowance will be made for omitted lessons, except in the case of protracted illness, and in such case due notice must be given as early as the day before lessons are resumed. No reduction will be made for pupils entering late in the term, except where pupils enter after six or more weeks of the term have passed. Music students withdrawing before the end of the term will be charged at the rate of $1.25 per lesson for all lessons taken or lessons that could have been taken up to the time of withdrawal.

DEPARTMENT OF STENOGRAPHY AND TYPEWRITING

PROFESSOR LAIN MR. ANDERSON MR. MILLER

Requirements for Admission. To meet the demand for instruction in stenography and typewriting, the above department is maintained in the college. To avoid interference with the regular college work, the work of this department is kept distinct, with certain requirents, and a definite course of study. For entrance to the course in English Stenography, students must be at least sixteen years of age. The average age of the students enrolled in this department, however, is usually much gher than this. In recent years the average has been 22½ years. Graduates of any commissioned high school in the Territory will be admitted without examination. All other applicants must show that they possess the required ability in English to enter the Fourth year College Preparatory class.

No guarantee is given to any student pursuing these courses that he will secure a position upon completion thereof. There is, however, little doubt but that any student satisfactorily completing a required course will be able to take a position, and no competent graduate of the department has failed to do so.

Equipment

This department is supplied with sixteen of the latest model Remington, Smith Premier, Underwood, and Oliver typewriters. The machines necessary for the work in office practice, consisting of adding, addressing and copying machines, presses, cabinets, and the like, are a part of the equipment used by the students. A department library containing the latest and best publications relating to the work of this course and the best modern business periodicals is at the command of the students.

It is important that the student enter this department promptly at the beginning of the course. Under no circumstances will a pupil be admitted after the second week. It is seldom that one who enters late is able to complete the required work satifactorily. No provision can be made for commencing the work of a course at any other time than as provided.

Stenography. In the first semester, the work is elementary in character, being a thorough study of the principles of shorthand; in the second semester, it covers word-signs and outline drill, as well as an advanced grade of work, introducing a good deal of business and other dictation. Text-books: Day's Complete Graham Shorthand Manual, revised edition, Graham Dictation Series, Graham's Business Letters, series 1 and 2, and Amanuensis Practice. Professor Lain.

Spelling. Not only are regular lessons given in spelling, but the large amount of correspondence and other writing done by the student and examined by the instructors furnishes the best possible means of fixing the habit of correct spelling. This class meets three times per week during the entire year and students are required to make an average of 90% for the above time. Professor Lain.

Typewriting. The outline of this course course corresponds to the outline of the stenography course; the first semester being elementary, covering correct fingering, touch mechanism, and care of machine. The second semester covers speed exercises, copying, making legal and commercial forms, typewriting from dictation, and transcription from shorthand notes. The four finger touch is used with blank key-board. Work absolutely free from errors is required. Opportunity is afforded students for work on both single and double key-board machines. Professor Miller.

Office Practice. This course will be conducted for the benefit of all those in the Stenography department and will consist of stenography and transcription work from the different departments of the college and copying work assigned from the department, in addition to press bulletin work, carbon work, mimeograph and multigraph work and the use of copying presses.

Advanced English Stenography. This course consists of the study of the science and art of phrase writing, court reporting, etc. This course in stenography is open only to those who hold a certificate from the English or Amanuensis course or its equivalent from some other institution. This course runs the entire year of nine months, and any one completing it will be able to take the United States Civil Service examinations without any difficulty.

Requirements for the Reporting Diploma; 1st, thirty minutes dictation, amounting to at least one hundred lines of transcript, transcribed on the typewriter in two hours. 2nd, Five minutes speed test, writing one hundred and twenty words per minute, and reading same back from notes in eight minutes.

English-Spanish Stenography. The experience of the past years has shown conclusively that a strong and growing demand exists for competent English-Spanish stenographers. The conditions existing in this locality and institution are so favorable for work in English-Spanish stenography that they may be said to be almost unique. The calls upon this college for such stenographers during the past few years have far exceeded the supply. Although these calls come principally from Mexico, there is an increasing demand in the United States and the newly acquired Spanish speaking possessions; and it is believed that the business opportunities open to competent English-Spanish stenographers are most desirable. For admission to this course students must show that they are prepared to complete the course within one year. To do this some previous knowledge of both English shorthand and the Spanish language is desirable and usually necessary.

Stenography. The work in this course consists of advanced English stenography for the first semester and the second semester's work consists of a study of the principles of Spanish stenography followed by Spanish dictation. Mr. Anderson.

COLLEGE RULES

CONDUCT

This institution has no written rules relating to the conduct of students but any violation of the accepted code is dealt with by the president as the particular case may demand.

EXAMINATIONS

1. Examinations will be held at the middle and end of each semester.

2. Entrance examinations will be held at the beginning of the first semester.

3. Reports will be sent to parents or guardians of all students after each examination.

GRADING

1. The system of grading is on the scale of 100, 70 being the lowest passing grade. Students whose grades fall below 70 in any subject but not below 55 shall be conditioned and may continue the work with the class. Students making a grade of 85 in their daily class work, may, at the discretion of the instructor, be excused from examination.

2. All conditions must be removed at the following examination. A student failing to remove any condition will be dropped from that class.

3. In making up the term grade in any subject, in case an examination has been held, the average daily grade is added to the examination grade and the sum divided by two. In case no examination is held at the end of a semester, the average daily grade is taken as the final grade.

4. If a student, at the end of any examination, fail in every subject, or in every subject save one, he may at once be dropped to a lower class, or from college, as the president may decide. Whenever a student, by action of the president or Course of Study Committee is put into a lower class, he

may be required to repeat all the studies of that class, whether he has previously passed them or not.

CLASSIFICATION

1. Students are classified according to the number of units they have completed. Upon completion of the work required for entrance, they are classified as Freshmen. Four units of college work are required in each year of the college course, in addition to the military drill or physical culture, required of all able bodied students not classified as juniors, seniors or graduates.

A unit consists of the work done in any subject having five periods of recitation per week throughout a college year of not less than 36 weeks. In calculating credits, two periods of laboratory or practice are counted as equivalent to one period of recitation.

2. No student taking a regular course is allowed to take up any subject in that course until he has passed in all preceding work necessary to fit him for that subject. Neither will such a student be excused from any prescribed work in that course except by action of the president or faculty.

3. No special student is allowed to enter any class unless in the opinion of the instructor in charge he is prepared in all necessary preceding branches.

4. In case of any conflict in the program of studies the higher subject shall give way to the lower, unless otherwise ordered by the president or faculty.

5. This college will accept credits from other institutions of equal rank.

6. To withdraw from any class, a student must present to the instructor the proper withdrawal card signed by the president.

7. To pursue special work in this institution a student must present reasons in writing for the same to the president for his approval. (See *Special Students*, p. 35.)

8. No student will be assigned less than 20 hours per week, except by permission of the president.

GRADUATION

1. Seniors having conditions not removed at the middle of the second semester of the senior year will not be considered candidates for a degree.

2. A student in order to graduate, must have completed the full amount of work included in one of the collegiate courses of study, or an equivalent of the same which has been accepted by the faculty.

3. Each candidate for graduation is required to prepare a thesis, which shall be passed upon by a committee consisting of the head of the department in which the work was done, the professor of English and the president.

4. Any graduate may be required by the faculty to give an exercise on commencement day, consisting of an oration or an extract from or an abstract of his thesis.

5. Subjects of theses must be presented to the head of the department for approval not later than the end of the first semester of the senior year.

6. All theses must be handed in for final inspection by the committee referred to under section 4 at least one week before commencement day, and finished theses must be filed with the Registrar not later than Monday of commencement week.

7. A thesis in order to be finally accepted must be clearly typewritten, on good linen paper 8x10½ inches and bound for preservation.

LIBRARY

1. Subject to the following rules, books and periodicals may be drawn from the library by making the necessary application to the librarian.

2. No library book, unless in a department library, may be kept out for more than two weeks consecutively. For each day over time a fine of three cents is imposed.

3. Enclyclopedias and similar works of reference must not be taken out of the library, except by special permission of the librarian.

Reserve books may not be taken out before 4:30 p. m. and must be returned by 9:00 a. m. of the following day; except that reserve books may be drawn after 11:00 a. m. on Saturday to be returned by 9:00 a. m. on the following Monday. For each day over time a fine of ten cents is imposed.

4. Current numbers of periodicals may not be kept out of the library longer than over night, except during the period from Friday evening to Monday morning and for each day over time a fine of five cents is imposed. The last seven issues of the dailies, the last two issues of the weeklies and the last issue of the monthlies are considered current numbers.

5. Current numbers of periodicals may not be drawn sooner than one hour before the library is closed and must be returned by 9:00 a. m. of the day on which rule 4 calls for their return.

6. Periodicals other than current numbers, will be governed by the same rules as library books.

7. No book or periodical assigned to any department may be drawn without the express consent of the head of that department.

8. The library is open for use between the hours of 8:00 a. m. and 12:00 M. and 1:00 p. m. and 5:00 p. m. five days of the week; from 8:00 a. m. to 12:00 M. on Saturdays, and from 2:00 p. m. till 6:00 p. m. on Sundays, when an attendant is present. Admission to the library is denied at all other times.

9. The continued disregard of any of the library rules will lead to the withdrawal of the privileges of the library from the offender.

ABSENCE AND TARDINESS

1. Any student who has been absent from class and has failed to render an excuse within two days after returning will be excluded from all classes until a satisfactory explanation has been made, and will be given a daily grade of zero in all classes until reinstated. Women students must render excuses for absence from classes to the Dean of Women; male

students below the third year preparatory class, to the Principal of the Preparatory Department; all other students to the President. A student will be given a daily grade of zero for each absence unexcused; also for each absence excused, unless the work is made up to the satisfaction of the instructor.

2. Any student who is more than ten minutes late at class must render an excuse the same as for an absence, A student who is not more than ten minutes late may be excused by the instructor immediately after class.

COLLEGE ORGANIZATIONS

1. The public exercises of all college organizations are subject in time, place, and character to the approval of the president or faculty. When possible, notice should be handed to the president two weeks before the date desired for the exercise.

2. The faculty reserves the right of passing upon the constitution and by-laws of all college organizations.

MISCELLANEOUS

1. It is the duty of any instructor or other college officer to note and rebuke violations of good order.

2. No student whose college work is unsatisfactory shall be permitted to take part in any public exercise connected with the college.

3. Smoking or the carrying of lighted pipes, cigars, or cigarettes is not permitted in any of the college buildings or upon the campus.

4. An honor roll consisting of the names of those students whose class grade is above 90 in four subjects will be published in the catalogue.

STUDENT ORGANIZATIONS

THE STUDENT CONGRESS

This organization has been an active force in student affairs for several years. Its special purpose is to bring the student body together as a whole and develope ways and means for the promotion of college spirit and fostering student activities. Through the student conference committee the faculty receives, for consideration, recommendations from the Student Congress executive committee. The work of the Student Congress in the past has been very satisfactory. All students of the institution are members of the Congress and the officers which form the executive committee are elected once a year. It has control of the election of the management of the college paper and directs its policy.

THE COLUMBIAN LIBRARY SOCIETY

Alphi Chi was the name taken first by a young men's secret society on October 25, 1891. The next year it was changed to the Columbian, and with the loss of its secret features grew steadily and prospered. In 1894-5 women were admitted with equal privileges. The work of the society is along literary and musical lines under the direction of a program committee. For over ten years this society published the only paper devoted to student life in the institution—"The New Mexico Collegian"—which was printed monthly. Membership in this society is limited to students taking work under college professors—that is, in any of the four year courses, two year courses, stenography course and Fourth Year Preparatory class. Regular meetings are held twice a month. Visitors are allowed during the literary part of meetings and a special program, to which more than usual care is given, is rendered once a term.

THE MINERVA LITERARY SOCIETY

This society was organized in November, 1904, and in membership is the largest in the college. Meetings are held twice a month and the preparation of programs of debates, readings, musical selections, and recitations is of great assistance to the members. Still more is the student broadened by participating in the social life of the society which is one of its strong features. Qualifications for membership are the same as for the Columbian Literary Society.

THE STENOGRAPHERS' ASSOCIATION OF NEW MEXICO

Membership in this association is confined to members and graduates of the stenography department. The association was formed five years ago and has had a vigorous existence. Programs for meetings are designed to cover all fields of interest to stenographers and to show possibilities in store for those doing phonographic work. The colors of the association are crimson and white and the neat pin worn by its members is circular in form and has a large crimson letter "S" on a white background.

THE ROUND-UP

The "New Mexico Collegian", founded in 1893 by the Columbian Literary Society and the "College Weekly," founded in 1906 by the Stenographers' Association, combined in 1907 forming "The Round-Up", a weekly under the control of the Student Congress. The paper is in newspaper form. One issue each month is of double size, the addition being devoted to matter of more literary nature than the news portion.

The paper is quite successful, due largely to the work of the editorial staff and the strictly business basis upon which it is conducted.

YOUNG MEN'S CHRISTIAN ASSOCIATION

This association was formed on September 23, 1905, by Mr. Titus, the District Secretary stationed at El Paso, Texas. A great deal of interest is taken in the work. The membership is made up of faculty members and students. The influence on the life of the student body is gratifying to the college authorities. A handsome two story building with large basement has been erected by popular subscription and has proved a most valued addition in many ways. The third annual territorial convention was held here early in April. The new building was dedicated at this time. The total number of members now enrolled is 130. The income from the building this year has more than paid all current expenses.

YOUNG WOMEN'S CHRISTIAN ASSOCIATION

In the spring of 1908 a local division of the Y. W. C. A. was formed with twenty seven charter members. The first year has been very encouraging. Bible classes, semi-monthly religious meetings, a few socials, and several sales of desirable articles have not only served well the purposes for which they were obviously intended, but have also given the members valuable training in executive ability. The fitting up of a room of their own during the coming year will be an additional source of interest and usefulness.

OTHER ORGANIZATIONS

Several other organizations exist among the students, social, scientific, and otherwise. Among the more important are the Dramatic Club, the Engineering Association, and the Agricultural Club; their names tell their aims. The doings and membership of these and other organizations are duly chronicled in the Swastika.

ATHLETIC ASSOCIATION

Sixteen years ago (1893) the students organized an Athletic Association for the development of athletics and such sports as would tend to keep the student physically sound and in good health while pursuing his college work. The association has grown steadily and expanded until it is the best organized and equipped, both with athletic goods and grounds, and with funds to carry on its work, of any like organization in the Territory. The cost of membership in the association is an annual fee of two dollars ($2.00). Upon payment of the fee the member of the association has access to any of the association property.

The efficiency of the association is shown by its work. It has engaged successfully each year in all of the lines of collegiate sport; baseball, basketball, football, track and field athletics as well as tennis. All but two of the territorial records are held by this college. The track team now holds the three silver loving cups, presented to the Intercollegiate Association by Hall and Leonard of Albuquerque, Manasse Bros. of Las Cruces and H. D. Bowman of Las Cruces.

The college field is the best in the Territory. It is excellently situated and equipped with grandstand, dressing rooms and shower. There are good fields for football and baseball, and a quarter mile track with a straight-a-way for the 100 and 220 yard events. The tennis courts are in excellent condition and give great satisfaction to the lovers of this sport.

In football the A. C. of N. M., has held the championship of the Territory for years, and the prospects are bright for the winning of the title next year.

During the basketball season of '08 and '09 the boys team played ten games and lost but one of them. They won an unquestioned title to the championship of the Territory and the southwest. The girls team played four games and lost none of them, winning the territorial honors.

The baseball schedule of '09 consisted of eleven games and during this schedule the team played excellent ball and retained the territorial championship won in the Albuquerque tournament in 1908.

The prospects for successful seasons in 1909-'10 are exceptionally bright. A majority of the emblem men of this year's teams will be back, and this together with the added facilities in the way of equipment, should make the coming year one of unparalleled success in the athletic history of the college.

CATALOG OF STUDENTS

Graduate

Bjerregaard, A. P.	Agricultural College, N. M.
Dessauer, Philip	Las Cruces, N. M.
Gallacher, William	White Oaks, N. M.
Henry, Claude P.	Mesilla Park, N. M.
Henry, H. C.	Yazoo City, Miss.
Kays, Victor C.	Magnolia, Ill.
Mitchell, S. R	Agricultural College, N. M.
Standley, Paul C.	Agricultural College, N. M.

Senior

Alleman, Herbert N	Chihuahua, Mex.
Friend, Lois	Las Cruces, N. M.
Kays, Victor C	Magnolia, Ill.
Pritchard J. LeRoy	Fairport, Mo.
Ramirez, Juan	Las Cruces, N. M.
Stewart, Herbert Clyde	Mesilla Park, N. M.
Uranga, Armando	Mesilla Park, N. M.

Junior

Ames, Walter R	Las Cruces, N. M.
Baker, Stuart Knight	Las Cruces, N. M.
Boone, Howard	Mesilla Park, N. M.
Eede, Arner G	Ballston Spa., N. Y.
Enriquez, Ignacio	Chihuahua, Mex.
Fraker, Arthur	Wagon Mound, N. M.
Goebel, Gordon	Santa Fe, N. M.
Kays, Bert R	Magnolia, Ill.
Oliver, Ruth E	Fierro, N. M.
Redding, Edward L	Mesilla Park, N. M.
Romero, Carlos	Chihuahua, Mex.
Young, Donald W	Las Cruces, N. M.

Sophomore

Campbell, W. E	Mesilla Park, N. M.
Chisum, Jamie W	Roswell, N. M.
Fitzgerald, Percy C	Roswell, N. M.
Hines, Raye	Mesilla, N. M.
Jacobs, Harry S	Capitan, N. M.
McCowen, Henry	Las Cruces, N. M.
MacIver, Ivander	Mesilla Park, N. M.

Mann, Walter L.	Lake Benton, Minn.
Merrill, S. E.	Los Lanos, N. M.
Mayer, Bertha	White Oaks, N. M.
Mayer, Paul W	White Oaks, N. M.
Powers, John E.	Santa Rita, N. M.
Quesenberry, George R.	Las Cruces, N. M.
Reeves, Fern	Las Cruces, N. M.
Stewart, Rupert	Mesilla Park, N. M.
Thomas, Leonard	Mesilla Park, N. M.
Wilson, Earl J.	Lake Valley, N. M.

Freshman

Brownlee, Paul	Las Cruces, N. M.
Carrera, Emil	Las Cruces, N. M.
Danos, Joe	Plague Mine, La.
Deemer, Dixon	Mesilla Park, N. M.
Floyd, Hugh	Encino, N. M.
Haggart, John K.	Topeka, Kan.
Hermann, Leslie	Tempe, Ariz.
McGregor, Grant	Lake Valley, N. M.
Pattison, Andrew	Berkeley, Cal.

College Special

Deemer, Phyllis	Mesilla Park, N. M.
Erdis, E. C.	Mesilla Park, N. M.
Laferrier, Arthur	Oro Grande, N. M.
Larson, Louie	Springer, N. M.
Miller, Bertha	Springfield, Mo.

Short Course

Adair, William	Las Cruces, N. M.
Carrera, Margaret	Las Cruces, N. M.
Carroll, Mrs	Las Cruces, N. M.
Chaves, Eulalio	Chihuahua, Mex.
Ford, Annis	Mesilla Park, N. M.
Johnson, Walter	Las Cruces, N. M.
King, Elmer	Farmington, N. M.
Larquier, Pedro	Mesilla Park, N. M.
Shields, Earl	Jemez Springs, N. M.
Skaggs, T. V.	Colorado Springs, Colo.
Spurling, Frank	Socorro, N. M.
Talavera, Reynaldo	Chihuahua, Mexico.
Weltmer, Susan	Santa Fe, N. M.
Windsor, Olaf	Santa Fe, N. M.

THE DESK AND CATALOG

SOME OF THE BOOKSTACKS

REFERENCE AND READING ROOM

Stenography

Anderson, Sylvia	Hillsboro, N. M.
Bratton, W. A	Lake Arthur, N. M.
Beach, Gilbert	Roswell, N. M.
Corral, Luis	Chihuahua, Mex.
Dessauer, Phillip	Las Cruces, N. M.
Dunn, Harold	Hillsboro, N. M.
Danos, Victor	Plague Mine, La.
Deemer, Mrs. P	Mesilla Park, N. M.
Forwood, May	Las Cruces, N. M.
Gallacher, William	White Oaks, N. M.
Gilliam, Rex E	Mesilla Park, N. M.
Goebel, Herbert	Belen, N. M.
Henry, H. C	Yazoo City, Miss.
Horton, Helen	Las Cruces, N. M.
Kirkpatrick, Sidney	Silver City, N. M.
Krick, Ida	Santa Fe, N. M.
Lane, Harry W	San Marcial, N. M.
Mandell, Bertha	Mesilla Park, N. M.
Mayberry, Pearl	Las Cruces, N. M.
Noyer, Charles	Albuquerque, N. M.
Pattison, Thomas	Berkeley, Cal.
Rabb, Ocie	Deming, N. M.
Roberts, Robert	Las Cruces, N. M.
Sheppard, Alice L	Mesilla Park, N. M.
Stamper, Fay	Las Cruces, N. M.
Taylor, George	Carthage, N. M.
Thomas, Mrs. Cora L	Mesilla Park, N. M.
Thomas, Faye	Mesilla Park, N. M.
Wilson, Oscar	Lake Valley, N. M.

Fourth Preparatory

Beecher, Sybil	Mesilla Park, N. M.
Blattler, Beulah	Mesilla Park, N. M.
Buvens, Inez	Mesilla, Park, N. M.
Clay, Cassius	Mesilla Park, N. M.
Diaz, M. R	Saltillo, Mex.
Forwood, Samuel	Las Cruces, N. M.
Given, Paul	Hillsboro, N. M.
Harwell, Roland	Silver City, N. M.
Hoagland, Ada	Las Cruces, N. M.
Jennings, John	Gallup, N. M.
Lyon, Edwin	Mesilla Park, N. M.
Mitchell, Coats	Mesilla Park, N. M.

Mitchell, Lethia	Mesilla Park, N. M.
Poe, Archie	Mesilla Park, N. M.
Prescott, Lionel	Mesilla Park, N. M.
Quesenberry, Richard	Las Cruces, N. M.
Ricketson, Olive	Lake Valley, N. M.
Saulsberry, Harry	Alamogordo, N. M.

Third Preparatory

Adair, Arthur	Las Cruces, N. M.
Anderson, Grey	Cardenas, Mex.
Beckwith, William	Mesilla Park, N. M.
Blaine, John	El Paso, Tex.
Bone, Norfleet	Chihuahua, Mex.
Boyd, Lena	Carrizozo, N. M.
Brownlee, Floyd	Las Cruces, N. M.
Canning, Francis	Carrizozo, N. M.
Carlisle, Hugh	Estancia, N. M.
Crist, Audie	Duran, N. M.
Davis, Nina	Mesilla Park, N. M.
Dessauer, Numa	Las Cruces, N. M.
Evans, Harold	Farmington, N. M.
Gilliam, Carmen	Mesilla Park, N. M.
Gregg, Fred	Santa Fe, N. M.
Harrison, Rass	Tucumcari, N. M.
Hirsch, Homer	Hillsboro, N. M.
Howard, W. Sidney	Mesilla Park, N. M.
Howell, Burte	Fierro, N. M.
Keese, Oliver	Las Cruces, N. M.
Kerr, Earl	Lordsburg, N. M.
Kirwan, Mary	Mesilla Park, N. M.
Lane, Uil	Las Cruces, N. M.
Longbottom, John	Lake Valley, N. M.
McWilliams, Dewitt	Clifton, Ariz.
Patterson, Samuel	Roswell, N. M.
Posey, Robert	Cloudcroft, N. M.
Russell, Rolla	Magdalena, N. M.
Smith, Lena	Cloudcroft, N. M.

Second Preparatory

Atkinson, Jesse	Estancia, N. M.
Baker, Roy	Las Cruces, N. M.
Beals, Morel	Lake Valley, N. M.
Berkey, Frank	Las Cruces, N. M.
Bjerregaard, James	Agricultural College, N. M.

Brashears, Arthur	Estancia, N. M.
Brown, Doris	Las Cruces, N. M.
Brownlee, Ruth	Las Cruces, N. M.
Buell, Clara	Mesilla Park, N. M.
Burke, Edith	Las Cruces, N. M.
Clayton, Vernor	Tularosa, N. M.
Crockett, William	Estes City, N. M.
Danos, Arthur	Plague Mine, La.
Drury, Miner	Wilmette, Ill.
Edwards, Harold	Las Cruces, N. M.
Fite, Burton	Dawson, N. M
Ford, Cora	Mesilla Park, N. M.
Ford, Willie	Mesilla Park, N. M.
Frenger, Reymond	Las Cruces, N. M.
Fullerton, Elmer	Socorro, N. M.
Gilliam, Rodney	Mesilla Park, N. M.
Goldenberg, Arthur	Tucumcari, N. M.
Goldenberg, Max	Tucumcari, N. M.
Greene, John	Tyrone, N. M.
Hall, William	Nutt, N. M.
Harrison, Jeff	Tucumcari, N. M.
Hoagland, Helen	Las Cruces, N. M.
Holt, Edwin	Las Cruces, N. M.
Lee, Dee	Estancia, N. M.
Lemon, Fred	Las Cruces, N. M.
Lindauer, Herman	Deming, N. M.
Lohman, Oliver	Las Cruces, N. M.
Longbottom, Onis	Lake Valley, N. M.
Martin, Joseph	Brighton, Mich.
Melton, Chandler	Clayton, N. M.
Pohl, Ella	Belen, N. M.
Redding, Ruby	Mesilla Park, N. M.
Romero, José	Las Cruces, N. M.
Russell, Lloyd	Becker, N. M.
Sanders, Robert	Hillsboro, N. M.
Scoggins, Belle	Mesilla Park, N. M.
Sheppard, Jesse	Mesilla Park, N. M.
Tillotson, Ella	Lower Peñasco, N. M.
Young, Leo	Royse City, Tex.

First Preparatory

Aguayo, Amanda	White Oaks, N. M.
Apodaca, Ricardo	Las Cruces, N. M.
Aragon, Herminio	Monticello, N. M.

Beecher, Constance	Mesilla Park, N. M.
Berkey, Grace	Las Cruces, N. M.
Boat, Roy	Aztec, N. M.
Buvens, Richard	Mesilla Park, N. M.
Burke, Ethel	Hillsboro, N. M.
Chavez, Demetrio	Las Cruces, N. M.
Chavez, Julian	Las Cruces, N. M.
Clayton, Cubia	Tularosa, N. M.
Dessauer, Florence	Las Cruces, N. M.
Dossey, Sarah	Las Cruces, N. M.
Dow, Ralph	Lincoln, N. M.
Elliott, Charles	Park View, N. M.
Ellwood, Marion	Las Cruces, N. M.
Forwood, Walter	Las Cruces, N. M.
Foster, Irwin	Las Cruces, M. M.
Freeman, Fornia	Las Cruces, N. M.
Frizzell, William	Cloudcroft, N. M.
Geck, Louis	Las Cruces, N. M.
Goddard, Sidney	Mesilla Park, N. M.
Goldenberg, Henry	Tucumcari, N. M.
Hager, Mabel	Mesilla Park, N. M.
Hall, Henry	Nutt, N. M.
Hookland, Mildred	Mesilla Park, N. M.
Howell, William	Fierro, N. M.
Isaacks, Jesse	Las Cruces, N- M.
Krause, Edmond	Evanston, Ill.
Kuster, Frederick	Las Cruces, N. M.
Lawrence, Charles	El Paso, Tex.
Lawrence, Josephine	El Paso, Tex.
Lester, Edward	Mesilla Park, N. M.
Llewellyn, Stanley	Las Cruces, N. M.
Locke, Lowell	Mesilla Park, N. M.
Longbottom, Maggie	Lake Valley, N. M.
Mandell, Jessie	Mesilla Park, N. M.
Martinez, Pedro	Park View, N. M.
Miller, Shannon	Cutter, N. M.
Mitchell, Lida	Mesilla Park, N. M.
Moreno, George	Sierra Mojada, Mex.
Moser, Robert	Cloudcroft, N. M.
Nabours, J. O	Three Rivers, N. M.
Nations, D. C.	Alpine, Tex.
Nevarez, Miguel	Las Cruces, N. M.
Pack, Don	Fierro, N. M.
Quesenberry, Fred	Las Cruces, N. M.

Ricketson, Mae	Lake Valley, N. M.
Roble, Carlos	Las Cruces, N. M.
Rogers, Juanita	Mesilla Park, N. M.
Sampson, Royce	Las Cruces, N. M.
Sampson, Ralph	Las Cruces, N. M.
Scoggins, Leota	Mesilla Park, N. M.
Smith, John	Cloudcroft, N. M.
Smith, Ollie	Cloudcroft, N. M.
Stoneking, Marion	Rosedale, N. M.
Talavera, Ernesto	Chihuahua, Mex.
Taylor, Earl	Carthage, N. M.
Tinnon, Myrtle	Carrizozo, N. M.
Upton, Philip	Deming, N. M.
Walker, Rose	Mesilla Park, N. M.
Walters, Charles	Organ, N. M.
Woodson, Edward	Las Cruces, N. M.

Special Preparatory

Adams, Walter	Theological Seminary, Va.
Alvarez, C	Las Cruces, N. M.
Anthony, Marc	Organ, N. M.
Aragon, Fidel	Monticello, N. M.
Beason, Henry	Mesilla Park, N. M.
Candler, Jeff	Mesilla Park, N. M.
Candler, Howard	Mesilla Park, N. M.
Carbajal, Gilbert	El Paso, Tex.
Coe, Ben	Glencoe, N. M.
Coe, Harvey	Glencoe, N. M.
Chacon, Amarante	Arroyo Hondo, N. M.
Cowan, Clarence	Globe, Ariz.
Garcia, David	Cuchillo, N. M.
Goddard, Alfred	Mesilla Park, N. M.
Gonzales, Juan	Las Cruces, N. M.
Gorostietta, Carlos	Chihuahua, Mex.
Kelt, Herman	White Oaks, N. M.
Lohman, Oscar	Las Cruces, N. M.
Lopez, Francisco	Mesilla, N. M.
Madrid, Nemacio	El Paso, Tex.
McDougal, Artie	Deming, N. M.
Owen, Paul	Lincoln, N. M.
Parker, Wilfred	Kingston, N. M.
Perez, José	Las Cruces, N. M.
Poe, Willie	Mesilla Park, N. M.
Shindler, Anna	El Paso, Tex.

Smith, Clifford	Hachita, N. M.
Stewart, Relus	Locust Grove, Okla.
Sultemeir, Frank	Corona, N. M.
Williams, Oliver	Tucumcari, N. M.

LIST OF MUSIC PUPILS

In Voice

Coats, Junior.
Davis, Nina.
Hager, Mabel.
Haggart, John.
Henry, Claud.
Henry, Cornelius.
Kirwan, Mary,
Lewis, Lucy.
Mayer, Bertha.

In Piano

Blattler, Lois.
Boyd, Lena.
Burke, Ethel.
Buvens, Inez.
Goebel, Emma.
Harwell, Roland.
Kirwan, Mary.
Lawrence, Josephine.
Martinez, Pedro.
Mayer, Bertha.
Parks, Olive.
Rogers, Juanita.
Shindler, Anna.
Weltmer, Susan.

ALUMNI

Officers of Alumni Association

For 1908-1909

President	Fannie Ford
First Vice-President	C. P. Wilson
Second Vice-President	L. W. Case
Secretary	Lottie Sweet
Treasurer	O. C. Snow

Class of 1894

Fabiañ García, B. S., M. S. A., Professor of Horticulture and Horticulturist to the Experiment Station, New Mexico College of Agriculture and Mechanic Arts.

Mrs. Agnes Herbert, (née Williams), B. S., Housewife, Roswel, N. M.

R. Roy Larkin, B. S., Southwestern Agent of Ginn & Co., East Las Vegas, N. M.

Lemuel C. McGrath, B. S., Deceased, 1907.

Oscar C. Snow, B. S., Ranchman, Mesilla Park, N. M.

Class of 1895

Mrs. Jessie C. Rhodes, (née Casad) B. S., Housewife, Guanajuato, Mexico.

Class of 1896

Mae Gilmore, B. S., Principal of the Baptist College, Alamogordo, N. M.

Alfred M. Holt, M. S., Deceased, 1901.

Albert H. Peterson, B. S., Mechanic, Chicago, Ill.

Clarence E. Rhodes, B. S., Guanajuato, Mexico.

Class of 1897

Joseph F. Bennett, M. S., with the Sullivan Machinery Co., El Paso, Texas.

Elgin B. Holt, B. S., Magdalena, Durango, Mexico.

Arthur F. Williams, B. S. Deceased, 1905.

Class of 1898

Edwin E. Casey, B. S., U. S. V., Deceased, 1898.

Duval G. Cravens, B. S., Head Master, Carlisle Military Academy, Arlington, Tex.

Charles E. Mead, B. S., Druggist, Colton, Calif.

Ivah R. Shallenberger, (née Mead), B. S., Housewife, Larned, Kan.

Isaac H. Stanley, B. S., Pinos Altos, N. M.

William A. Sutherland, B. S., Member of the law firm of Holt and Sutherland, Las Cruces, N. M.

Lottie Sweet, B. S., Teacher, Las Cruces, N. M.

George M. Williams, B. S., Student and Social Worker, Antioch, Calif.

Class of 1899

Edward J. Coe, B. S., Ft. Stanton, N. M.

Walter E. Holt, B. S., Magdelena, Durango, Mexico.

John D. Tinsley, B. S., Professor of Physics and Soil Physicist, Vice-Director of the Experiment Station, New Mexico College of Agriculture and Mechanic Arts.

Class of 1900

William Cory Meeker, B. S., A. B., Minister, Edgerton, Kansas.

Charles Lewis Post, M. S., U. S. Deputy Mineral Surveyor and County Surveyor Doña Ana County, Las Cruces, N. M.

Archie Bruce Sage, B. S., Professor of Mechanical and Electrical Engineering, New Mexico College of Agriculture and Mechanic Arts,

Halbert E. P. Thomas. B. S., Deceased.

Class of 1901

Leah Nora Case, (née Newberry), B. S. Housewife, Las Cruces, N. M.

Minnie Wilson Sutherland (née Newberry), B. S., Housewife, Las Cruces, N. M.

Alfredo Marcos Sanchez, B. S., M. S., Deceased.

Matthew Steel, M. S., Assistant in Chemistry, Columbia University, New York City.

Class of 1902

Theron Catlin Bennett, B. S., Omaha, Neb.

Elizabeth Koger (née Coleman), B. S., Housewife, Rincon, N. M.

Elizabeth C. Foster, B. S., Teacher, Las Cruces, N. M.

Frances French, B. S., Teacher, Las Cruces, N. M.

James Stanislaus Macgregor, M. S., Instructor in Steam Engineering, Columbia University, New York City.

Class of 1903

Fannie Ford, B. S., Teacher, Las Cruces, N. M.

Maude Bloom, (née McFie), B. S., Teacher, Mesilla Park, N. M.

Orrick B. Metcalfe, M. S., Apiarist, Mesilla, N. M.

Ina M. Nelson, B. S., A. B., Lake Valley, N. M.

Class of 1904

Clarence D. Case, B. S. in Ag., Ranchman, Las Cruces, N. M.

Lauren W. Case, B. S., Assistant Cashier, Bowman's Bank, Las Cruces, N. M,

Lute Foster, B. S., Assistant in Department of Music, New Mexico College of Agric. and Mech. Arts.

Orpha Bennett Hoblit, B. S., Housewife, Agricultural College, N. M.

Pearl C. Miller, B. S., Teacher of Domestic Science, Sherman Institute, Riverside, Calif.

Rowena Poe (née Mott), B. S., Housewife, Las Cruces, N. M.

Class of 1905

Thomas B. Green, B. S. in Ag., Deceased, 1905.

Annetta May Harney, B. S., Teacher, Oceanside, Calif.

Reginald H. Hart, B. S. in Ag., Los Angeles, Calif.

Benjamin F. Nabours, B. S., in M. E., Ranchman, Estey, N. M.

Rafael Ramirez, B. S. in Ag., Deceased, 1907.

Harry H. Schutz, B. S., B. S. A., Cornell, 1907; Ranchman, El Paso, Texas.

Class of 1906

John F. Blinn, B. S., Assay Office of Kansas City Consolidated Smelter, El Paso, Texas.

Merle Anna Blinn, B. S., Teacher, Hood River,, Oregon.

John William Boutz, B. S. in Ag., Agriculturist, Harris, Sask., Canada.

Archie A. Brown, B. S. in M. E., Draughtsman in Engineer's Office, S. P. Ry., San Francisco, Calif.

Ulysses G. Brown, B. S. in M. E., Draughtsman in Engineer's Office, S. P. Ry. Co., San Francisco, Calif.

José A. Bruno, B. S. in M. E., Planter, Guayama, Puerto Rico.

Ruth Coleman, B. S., Teacher in City Schools, El Paso, Texas.

Guy C. Given, B. S., Assistant Chemist, Experiment Station, State College, Penn.

Earl Addison Graham, B. S. in M. E., Westinghouse Company, Hamilton, Canada.

Charles DeWitt Miller, B. S., Assistant to Territorial Irrigation Engineer, Santa Fe, N. M.

Bertha Peet, B. S., at home, Monticello, Ind.

Class of 1907

Vicente Dávila, B. S. in M. E., Ranchman, Sabinas, Mexico.

Ralph B. Deemer, B. S., Assistant in Chemistry, Agricultural Experiment Station, College Park, Md.

Allen G. Graham, M. S. A., Teacher of Agriculture in the Philippine Islands.

John George Miller, M. E., Teacher of Mech. Engin. in the Philippine Island.

José Quintero, B. S. in M. E., Mechanic, Las Cruces, N. M.

Paul C. Standley, B. S., Assistant Curator, Herbarium of the U. S. National Museum, Washington, D. C.

Class of 1908

Dean W. A. Bloodgood, B. S. in M. E., T. & M. Ry., Revuelto, N. M.

J. Maughs Brown, B. S. in C. E., Agricultural College, N. M.

Philip Dessauer, B. S. in M. E., Las Cruces, N. M.

William Endicott, B. S. in M. E., Lake Valley, N. M.

William W. Gallacher, B. S. in M. E., White Oaks, N. M.

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